RESTRICTED

EXECUTIVE OFFICER
U. S. S. FELAND

SHIP'S ORGANIZATION

COPY No. 2

1822—M.I.N.Y. 1-18-43—35

SHIP'S ORGANIZATION AND REGULATIONS

U. S. S. FELAND

Subject: ORGANIZATION AND REGULATIONS BOOK - Promulgation of.

1. The Organization and Rugulations Book is hereby promulgated for the information and compliance of all personnel attached to this vessel.

2. Nothing in this publication shall be considered to supersede any provision of the Navy Regulations, Navy Department Directives, Fleet and Force Orders and regular or other instructions from higher authority, to all of which it is supplementary.

3. It is directed that all officers and petty officers familiarize themselves with the entire contents and instruct the enlisted personnel under them in such parts as are applicable.

4. From time to time changes will be promulgated, and it will be the responsibility of each holder of this publication to see that such are correctly entered, the pages checked against the "List of Effective Pages" issued therewith, and the date and signature entered in the "Table of Changes".

5. Each numbered copy will be issued on receipt by the Ship's Secretary to the holder designated on the "Distribution List". New personnel will be given every opportunity by division petty officers to acquaint themselves with the contents of this publication.

6. Each officer holding a copy of this publication will return it to the Ship's Secretary upon being detached or ordered away for prolonged periods, and obtain the return of his receipt therefor. This publication is Ship's property and shall be kept neat and clean and protected from the weather.

SUBMITTED:

[illegible], U. S. Navy.
Executive Officer

APPROVED:

[illegible], U. S. Navy.
Commanding Officer.

ORGANIZATION AND REGULATIONS

INDEX

PART one - ORGANIZATION

CHAPTER I GENERAL DESCRIPTION AND MISSION.

CHAPTER II ORGANIZATION.
Section 1 Administrative Organization.
Section 2 Officer Complement and Assignment of Duties.
Section 3 Allowed Complement.
Section 4 Allocation of Personnel.
Section 5 Assignment of Space.
Section 6 Quarters Bill.
Section 7 Berthing Bill.
Section 8 Messing Bill.
Section 9 Cleaning and Preservation Bill.
Section 10 Inspection Bill.

CHAPTER III EMERGENCY BILLS.
Section 1 General Quarters.
Section 2 Battle Bill.
Section 3 Fire Bill.
Section 4 Collision Bill.
Section 5 Abandon Ship Bill.
Section 6 Man-Overboard Bill.
Section 7 Ship Salvage and Rescue Bill.
Section 8 Steering Bill.
Section 9 Gale at Anchor Bill.

CHAPTER IV DAMAGE AND ENGINEERING CASUALTY CONTROL.
Section 1 Damage Control Organization.
Section 2 General Information.
Section 3 Material Conditions.
Section 4 Door and Hatch Bill.
Section 5 Ventilation Bill.
Section 6 Drainage Bill.
Section 7 Fire Main, Flushing and Sprinkling System Bill.
Section 8 Fuel Oil Bill.
Section 9 Jettisoning Bill.
Section 10 Gas Defense Bill.
Section 11 Engineering Casualty Control Organization.
Section 12 Description of Engineering Plant.
Section 13 Engineering Casualties - Procedure.
Section 14 List of Prints, Booklets and Folders.

ORGANIZATION AND REGULATIONS (cont'd)

INDEX

CHAPTER	V	SPECIAL BILLS.
Section	1	Port Duty Bill.
Section	2	Special Sea Details.
Section	3	Getting Underway and Anchoring Bill.
Section	4	Mooring Bill.
Section	5	Docking Bill.
Section	6	Cargo Handling Bill.
Section	7	Towing Bill.
Section	8	Paravane Bill.
Section	9	Fueling Bill.
Section	10	Fueling at Sea Bill.
Section	11	Boat Bill.
Section	12	Darken Ship Bill.
Section	13	Sanitary Bill.
Section	14	Air Bedding Bill.

PART Two - REGULATIONS

CHAPTER	VI	ADMINISTRATIVE REGULATIONS
Section	1	Daily Routines (Port - Sea).
Section	2	Weekly, Monthly and Quarterly Routine.
Section	3	Hull Inspection and Hull Records.
Section	4	System of Directives.
Section	5	Police Duties and Authority.
Section	6	Communications.
Section	7	Safety Regulations.
Section	8	Miscellaneous Regulations.
CHAPTER	VII	PERSONNEL REGULATIONS
Section	1	Conduct and Military Appearance.
Section	2	Discipline.
Section	3	Advancements.
Section	4	Leave and Liberty.
Section	5	Clothing and Uniform.
Section	6	Health and Hygiene.
Section	7	Security.

PART Three - CHARACTERISTICS AND GENERAL INFORMATION

CHAPTER	VIII	CHARACTERISTICS AND GENERAL INFORMATION
Section	1	Characteristic Data.
Section	2	Table of Masthead Heights.
Section	3	Armament.
Section	4	Fresh Water Tanks, Voids and Cofferdams.
Section	5	Anchor Gear.
Section	6	Communication Installations.
Section	7	Radar Installations.
Section	8	Navigational Installations.
Section	9	Ship's Berthing and Loading Characteristics.

ORGANIZATION AND REGULATIONS (cont'd)

INDEX

CHAPTER V SPECIAL BILLS.
Section 1 Port Duty Bill.
Section 2 Special Sea Details.
Section 3 Getting Underway and Anchoring Bill.
Section 4 Mooring Bill.
Section 5 Docking Bill.
Section 6 Cargo Handling Bill.
Section 7 Towing Bill.
Section 8 Paravane Bill.
Section 9 Fueling Bill.
Section 10 Fueling at Sea Bill.
Section 11 Boat Bill.
Section 12 Darken Ship Bill.
Section 13 Sanitary Bill.
Section 14 Air Bedding Bill.

PART Two - REGULATIONS

CHAPTER VI ADMINISTRATIVE REGULATIONS
Section 1 Daily Routines (Port - Sea).
Section 2 Weekly, Monthly and Quarterly Routine.
Section 3 Hull Inspection and Hull Records.
Section 4 System of Directives.
Section 5 Police Duties and Authority.
Section 6 Communications.
Section 7 Safety Regulations.
Section 8 Miscellaneous Regulations.

CHAPTER VII PERSONNEL REGULATIONS
Section 1 Conduct and Military Appearance.
Section 2 Discipline.
Section 3 Advancements.
Section 4 Leave and Liberty.
Section 5 Clothing and Uniform.
Section 6 Health and Hygiene.
Section 7 Security.

PART Three - CHARACTERISTICS AND GENERAL INFORMATION

CHAPTER VIII CHARACTERISTICS AND GENERAL INFORMATION
Section 1 Characteristic Data.
Section 2 Table of Masthead Heights.
Section 3 Armament.
Section 4 Fresh Water Tanks, Voids and Cofferdams.
Section 5 Anchor Gear.
Section 6 Communication Installations.
Section 7 Radar Installations.
Section 8 Navigational Installations.
Section 9 Ship's Berthing and Loading Characteristics.

CHANGES IN
ORGANIZATION AND REGULATIONS
U. S. S. FELAND (APA11)

CHANGE NUMBER	DATE MADE	MADE BY	CHECKED BY

CHAPTER I

Section 1. General Description and Mission.

101. The U.S.S. FELAND (APA11) is an Attack Transport of 6,510 tons full load displacement, 414'-4" overall length, with a 56'-0" beam and a normal loaded draft of 18'-0".

102. She is driven at a designed maximum speed of 19 knots by two Westinghouse steam reduction gear turbine engines.

103. The ship is fitted to carry 61 troop officers and 810 enlisted troop personnel. There are accommodations for a Ship's Company of 39 officers and 420 enlisted men.

104. The maximum cargo capacity is approximately 450 dead weight tons.

105. The complement of landing craft is fifteen LCV(P)'s and one LCS(S).

106. She was built by the Consolidated Steel Corporation, Ship Building Division, Wilmington, California, and was commissioned at Roosevelt Base, San Pedro, California, on 21 June 1943.

107. For further characteristics data see Chapter 8, Part III of this book.

Section 2. Mission.

108 The mission of an Attack Transport (APA) is:

a. To combat load and transport assigned troops and their equipment to the theatre of operations.

b. To land the embarked troops and their equipment in landing craft and landing boats on enemy beaches in accordance with established doctrine and the tactical plan of the Landing Force Commander.

c. To evacuate troops, casualties and prisoners of war as directed, and provide necessary medical care to the wounded.

d. To transport evacuated troops, casualties and prisoners of war to ports of debarkation

Secondary Mission.

109. Train embarked troops in the technique of amphibious landing attack operations.

RESTRICTED

CHAPTER 1

Section 1. General Description and Mission.

102. The [illegible] (AP[illegible]) is an Attack Transport of 6,[illegible] tons displacement, [illegible] overall length, with a [illegible] beam and a normal loaded draft of [illegible].

103. The is driven at a designed maximum speed of [illegible] knots by two [illegible] steam reduction gear turbine engines.

104. The ship is fitted to carry [illegible] troop officers and [illegible] enlisted personnel. There are accommodations for a Ship's Company of [illegible] officers and [illegible] enlisted men.

105. The maximum cargo capacity is approximately [illegible] dead weight tons.

106. The complement of landing craft as fitted: LCV(P)'s and one LCM(3).

107. The was built by the Consolidated Steel Corporation, Ship Building Division, Wilmington, California, and was commissioned at Terminal Island, San Pedro, California, on [illegible] June 1943.

108. For further characteristics data see Chapter 5, Part III of this book.

Section 2. Mission.

109. The mission of an Attack Transport (APA) is:

a. To conduct local and transport assigned troops and their equipment to the theatre of operations.

b. To land the embarked troops and their equipment in landing craft and landing boats on enemy beaches in accordance with established doctrine and the tactical plan of the Landing Force Commander.

c. To evacuate troops, casualties and prisoners of war as directed, and provide necessary medical care to the wounded.

d. To transport evacuated troops, casualties and prisoners of war to ports of debarkation.

Secondary Mission.

110. Field assigned Naval [illegible] in the training of amphibious landing [illegible] specialists.

CHAPTER II

Section 1. Administrative Organization.

201. For the purpose of administration, the ship will be divided into Departments, Divisions, and Sections under Department Heads and Division Officers as show in the following table:

Commanding Officer - - - - - - - - - - - - - Captain

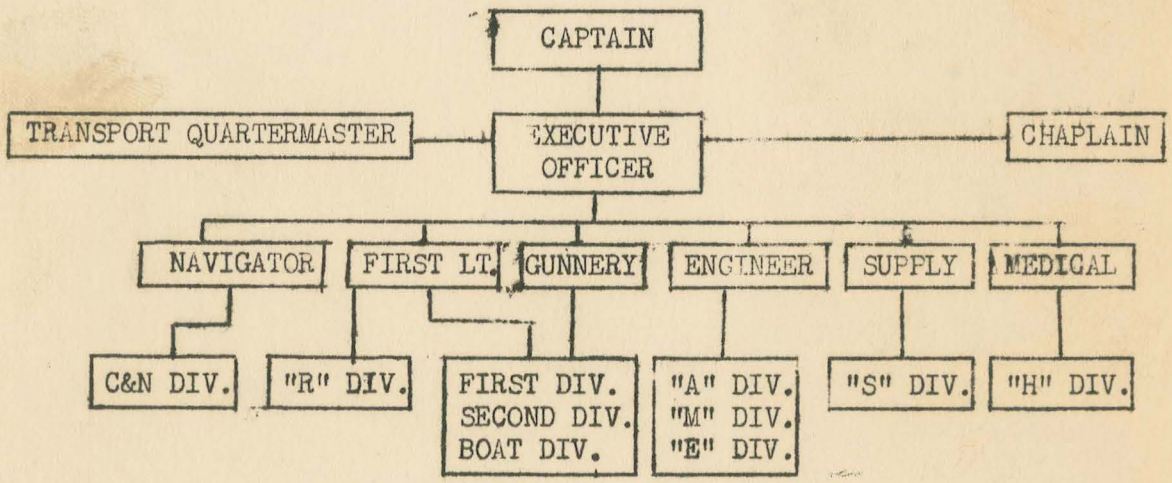
Executive Officer - - - - - - - - - - - - - - Commander
Training of Officers
Legal Aide

Assistant for Morale - - - - - - - - - - - - Chaplain

DEPARTMENT	DEPARTMENT ASSIGNMENTS
a. Navigation	Navigation Maneuvering control. Communications Tactics Intelligence Ship's Chief Censor C&N Division Navigation lookouts Deck watch supervision Education Post Office
b. Construction and Repair	Damage control and gas warfare Hull maintenance and upkeep Messing and berthing - crew and troops. "R" Division Deck Divisions. Boat Maintenance Cargo Stowage
c. Gunnery	Operation and maintenance of battery. Fire Control Magazines - ship and cargo. Training of guns' crews. Lookouts - surface, horizon and sky. Deck Divisions. (1st, 2nd, Boat).
d. Engineering	All machinery and electrical installations - care, operation and maintenance. Engineer watch supervision. Training and instruction of engineer divisions, "A", "E", and "M".

DEPARTMENT	DEPARTMENT ASSIGNMENTS
e. Medical	Health of all personnel. Sanitation of ship. First Aid training. "H" Division.
f. Supply	Equippage, supplies, commissary. Provisions, clothing - maintenance and issue. Disbursing. General Mess. Troop Mess. "S" Division. Ship's Store. Clothing and Small Stores.

202. It will be noted from the following diagram, that the entire Ship's complement is divided into six Departments and ten Divisions.



203. Heads of Departments.

The duties of Department Heads are as laid down in the Navy Regulations and appropriate Bureau Manuals. All officers shall familiarize themselves with these regulations and special instructions.

204. Each Department Head will keep his senior assistant informed and trained so as to be able to take over his duties at any time. There must be a capable and well trained substitute for every important officer or petty officer in the organization, so that in case of casualty, sickness or other absence of the senior the job will go on and function smoothly.

205. In addition to being conversant with their general duties, all Heads of Departments should become familiar with every part of the ship and each piece of equipment or machinary under their supervision. Unfamiliarity with equipment may mean the loss of the ship in an emergency or casualty.

206. The general description and composition of the divisions is as follows:

Designation	Duties	Composition
1st Division	Forward Deck Division	Seaman Rates.
2nd Division	After Deck Division	Seaman Rates.
Boat Division	Landing Boats	Seaman & Eng. Rates.
C&N Division	Navigation & Communications.	Quartermasters, Signalmen, Radiomen, Radarmen, Radio Techs, Yeomen.
"R" Division	Construction & Repair	Artificer Rates.
"M" Division	Engine Rm. Division	Firemen & Eng. Rates.
"E" Division	Electrical Division	Electrician Rates.
"A" Division	Auxiliary Machinery	Spec. Eng. Rates.
"S" Division	Supply, Food Preparation, Officer's Food preparation.	Storekeepers, Commissary Stds. Ship's Cooks & Bakers Stewards & Cooks.
"H" Division	Medical Division	Hospital Branch

207. For administration and watch standing in port, each division is divided into four Sections and two Watches. The first and third sections shall comprise the starboard watch, the second and fourth the port watch.

208. Division officers shall prepare complete and detailed Watch, Quarter and Station Bills for the members of their divisions for performing all details of ship's duty and submit these to the Executive Officer for approval.

209. Each man, upon assignment to the division shall be assigned his bunk and locker number, section and watch as well as his station in each operation of the Ship's functions.

210. Personnel of each division will be so detailed under the immediate supervision of assigned petty officers, as to thoroughly cover all duties, material and spaces assigned to the division, and to this end the Division Officer will maintain the Watch, Quarter and Station Bill in an up-to-date condition.

211. Division Officers are responsible that their divisions' functions are carried on at all times, even during their temporary absence. They will normally accomplish division tasks by working directly through their petty officers, bearing in mind the undermining effect of habitually exercising authority directly over a petty officer's subordinates in tasks for which the petty officer is held responsible. Petty Officers will further be required to accept the responsibility for maintaining the discipline and enforcing the compliance with orders, regulations instructions and customs of the Service of the personnel under their direction. Any tendency to consider this solely as the responsibility of the Ship's Police Petty Officer shall be avoided.

212. Beach Parties.

The personnel of the Beach Party will be selected from among the several divisions and will be considered a permanent organization in the same sense as are gun crews and repair parties, see Chapter XII, Transport Doctrine, Amphibious Forces, U.S. Pacific Fleet.

213. The Boat Group Commander will be designated as the Boat Division Officer. The Assistant Boat Group Commander and Boat Officers will be the junior Division Officers. Boat Officers assigned to the ship for training will also be assigned to the boat division.

Section 2. THE OFFICER COMPLEMENT AND ASSIGNMENT OF DUTIES.

214.

RANK	ADMINISTRATIVE DUTIES	COLLATERAL DUTIES
Captain (line)	Commanding.	
Commander (line)	Executive Officer.	Educational Officer. Morale Officer.
Lieut.Comdr. (line)	Navigator.	Deck Court Officer. Intelligence Officer
Lieut.Comdr. (line)	Gunnery Officer	Training
Lieutenant (line)	Engineer Officer	Hull Board
Lieutenant (line)	First Lieutenant Damage Control	Hull Board Debarkation
Lieutenant (line)	Communication Officer	C&N Division Officer.
Lieutenant (line)	Deck Watch & Div.Officer, First Division.	
Lieut. (jg) (line)	Radio Material	Signal Officer
Lieut. (jg) (line)	Deck Watch & Div.Officer, Second Division.	
Lieut. (jg) (line)	Deck Watch & Div.Officer.	
Lieut. (jg) (line)	Radar Material	Assistant Navigator.
Ensign - - - (line)	Engineering Watch and Div.Officer, "M" Div.	
Ensign - - - (line)	Engineering Watch and Div.Officer, "A" Div.	
Ensign - - - (line)	Deck Watch and Div.Officer.	
1st. Lieut. (USMC)	Transport Quartermaster. Troop Liaison Officer.	Legal Officer.
Lieut. Comdr. (MC)	Senior Medical Officer.	Sanitation Officer.
Lieut. (jg) (MC)	Junior Medical Officer.	"H" Division Officer.
Lieutenant - (DC)	Dental Officer.	
Lieut. Comdr. (SC)	Supply Officer.	Coding Board.
Lieut. (jg) - (SC)	Disbursing Officer.	"S" Division Officer.
Lieut. Comdr. (ChC)	Chaplain	Welfare Officer. Ass't. Morale Officer.
Boatswain	Ship's Boatswain	"R" Division Officer.
Machinist	Junior "M" Div. Officer.	Engineering Watch Officer
Electrician	"E" Division Officer.	Engineering Watch Officer
Carpenter	Ship's Carpenter.	Repair Officer.
Pay Clerk	Ass't. Supply Officer.	Coding Board.
Pay Clerk	Ass't. Supply Officer.	Coding Board.

214.(cont'd)

RANK	ADMINISTRATIVE DUTIES	COLLATERAL DUTIES
	Landing Boat Group Complement	
Lieutenant (line)	Boat Group Commander	Boat Division Officer.
Lieut.(jg) (line)	Assistant Boat Group Commander.	Ass't Boat Div. Officer, Watch Officer
Lieut.(jg) (line)	Boat Officer.	Boat Div. Jr. W&D. Off.
Ensign - - (line)	Boat Officer.	Boat Div. Jr. W&D. Off.
Ensign - - (line)	Boat Officer.	Boat Div. Jr. W&D. Off.
Ensign - - (line)	Boat Officer.	Boat Div. Jr. W&D. Off.
Ensign - - (line)	Boat Officer.	Boat Div. Jr. W&D. Off.
Ensign - - (line)	Boat Officer.	Boat Div. Jr. W&D. Off.
	Beach Party Complement	
Lieutenant (line)	Beachmaster	Ass't First Lieutenant
Lieut.(jg) (line)	Beach Party Communication Officer.	Ass't Communication Off.
Lieut.(jg) (MC)	Beach Party Medical Officer.	Ass't Medical Officer.

The above assignment (a total of 39 Officers) is based on the allowed complement of officers. The officers actually assigned by the Bureau may often be of different ranks, and the actual numbers on board will vary according to availability of officers.

Section 3. Allowed Complement.

215. The allowed complement for Ship's Crew is shown in the following table:

Seaman Branch	
CBM	2
BM1c	4
BM2c	6
Cox	8
CGM	1
GM1c	2
GM2c	2
GM3c	4
CQM	1
QM1c	1
QM2c	1
QM3c	1
CSM	1
SM1c	2
SM2c	3
SM3c	4
FC1c	1
FC3c	1
FCO2c	1
FCO3c	1
S1c	22
S2c	25
	94

Artificer Branch	
CEM	1
EM1c	2
EM2c	3
EM3c	4
CRM	1
RM1c	3
RM2c	4
RM3c	5
CCM	1
CM1c	1
CM2c	1
CM3c	2
CSF	1
SF1c	1
SF2c	1
SF3c	2
RT1c	1
RT2c	1
CRdM	1
RdM1c	1
RdM2c	2
RdM3c	4
	43

Artificer (ERF)	
CMM	3
MM1c	5
MM2c	7
MM3c	8
MoMM1c	1
MoMM2c	1
CWT	1
WT1c	2
WT2c	3
WT3c	4
B1c	1
M1c	1
F1c	11
F2c	12
	60

Special Branch	
CY	1
Y1c	1
Y2c	2
Y3c	3
CSK	1
SK1c	1
SK2c	2
SK3c	3
CPhM	1
PhM1c	2
PhM2c	3
PhM3c	6
SSMB2c	1
SSML1c	1
SSML2c	1
SSML3c	1
MaM2c	1
	31

Aviation Branch	
AerM3c	1
	1

Commissary Branch	
CCS	2
SC1c	2
SC2c	2
SC3c	2
Bkr1c	1
Bkr2c	1
Bkr3c	1
	11

Steward's Branch	
CSt	1
St1c	1
St2c	2
St3c	3
CCk	1
Ck1c	1
Ck2c	2
Ck3c	3
StM1c	8
StM2c	10
	32

Allowance of Divers

Divers 2nd Class 2

(Not in addition to complement).

Summary by Pay Grades	
Grade 1	21
Grade 2	39
Grade 3	53
Grade 4	71
Grade 5	41
Grade 6	47
	272

216. The Allowed Complement for Landing Boat Group is shown in the following table:

Seaman Branch		Artificer Branch		Articifers (ERF)	
CBM	1	RM2c	1	CMoMM	1
BM1c	2	RM3c	1	MoMM1c	2
BM2c	5	CM1c	1	MoMM2c	5
Cox	11	SF2c	1	MoMM3c	11
GM2c	1		4	EM1c	1
GM3c	1				20
SM2c	1				
SM3c	1				
S1c	16				
S2c	16				
	55				

Summary by Pay Grades	
Grade 1	2
Grade 2	6
Grade 3	14
Grade 4	25
Grade 5	16
Grade 6	16
	79

217. The Allowed Complement for Beach Platoon is shown in the following table:

Seaman Branch		Artificer Branch		Artificer (ERF)	
CBM	1	RM1c	1	MoMM1c	1
BM1c	1	RM2c	1	MoMM2c	1
BM2c	1	RM3c	3	MoMM3c	~~1~~
SM2c	1	CM1c	1	EM3c	1
SM3c	2	CM2c	1	F1c	1
S1c	8	SF1c	1		5
S2c	8		8		
	22				

Special Branch	
PhM1c	1
PhM2c	1
HA1c	6
	8

Summary by Pay Grades	
Grade 1	1
Grade 2	6
Grade 3	6
Grade 4	7
Grade 5	15
Grade 6	8
	43

Section 4. Allocation of Personnel.

218. Allocation of the allowed complement to divisions is shown in the following table:

Division Allowed Complement

RATINGS	DIVISIONS										
	1st	2nd	"R"	"C" "N"	"A"	"E"	"M"	"S"	"H"	Bts.	Total
CBM	1	1	1							1	4
BM1c	2	2	1							2	7
BM2c	3	3	2							4	12
Cox	4	4								11	19
CGM		1									1
GM1c	1	1									2
GM2c	1	2									3
GM3c	3	2									5
CQM				1							1
QM1c				1							1
QM2c				1							1
QM3c				1							1
CSM				1							1
SM1c				2							2
SM2c				5							5
SM3c				7							7
FC1c	1										1
FC3c		1									1
FCO2c		1									1
FCO3c	1										1
S1c	14	15		3(S)		3(S)		3(S)		8	46
S2c	15	17		3(S)				1		13	49
CRM				1							1
RM1c				4							4
RM2c				6							6
RM3c				9							9
RT1c				1							1
RT2c				1							1
CRdM				1							1
RdM1c				1							1
RdM2c				2							2
RdM3c				4							4
CCM			1								1
CM1c			3								3
CM2c			2								2
CM3c			2								2
CSF			1								1
SF1c			2								2
SF2c			2								2
SF3c			2								2
M1c					1						1
CMM					1		2				3
MM1c					1		4				5
MM2c					3		4				7
MM3c					3		5				8

RATINGS	DIVISIONS										
	1st	2nd	"R"	"C" "N"	"A"	"E"	"M"	"S"	"H"	Bts.	Total
CMoMM										1	1
MoMM1c					2					2	4
MoMM2c					2					5	7
MoMM3c					1					11	12
CEM						1					1
EM1c						3					3
EM2c						3					3
EM3c						5					5
CWT							1				1
WT1c							2				2
WT2c							3				3
WT3c							4				4
B1c							1				1
F1c							12				12
F2c							12				12
AerM3c				1							1
CY				1							1
Y1c				1							1
Y2c				2							2
Y3c				3							3
CSK								1			1
SK1c								1			1
SK2c								2			2
SK3c								3			3
CPhM									1		1
PhM1c									3		3
PhM2c									4		4
PhM3c									6		6
HA1c									6		6
SSML1c								1			1
SSML2c								1			1
SSML3c								1			1
SSMB2c								1			1
MaM2c				1							1
CCS								2			2
SC1c								2			2
SC2c								2			2
SC3c								2			2
Bkr1c								1			1
Bkr2c								1			1
Bkr3c								1			1
CSt								1			1
St1c								1			1
St2c								2			2
St3c								3			3
CCk								1			1
Ck1c								1			1
Ck2c								2			2
Ck3c								3			3
StM1c								8			8
StM2c								10			10
Totals:	46	50	19	64	14	15	50	58	20	58	394

Strikers assigned as follows:

"S" Div. 1-SC, 1-SSMB, 1-SK

"E" Div. 3-EM C & N Div. 2-QM, 3-RdM, 1-Y Total: 12

Section 5. Assignment of Spaces

219. The various parts of the ship will be assigned to departments, divisions, and special details for berthing, cleanliness and upkeep. The general principle followed should be to assign those spaces to departments, divisions and special details who live, work and have battle stations in these spaces. In the cases wherein compartments are occupied by more than one division or special detail the responsibility will be assigned to the activity occupying the majority of space, but who will received assistance from the other occupants.

220. Division Assignment:

First Division: That portion of the ship from keel to truck extending from the bow aft to frame 84, except only those spaces specifically assigned to other divisions.

Second Division: That portion of the ship from keel to truck extending from frame 84 aft to the transome, except only those spaces specifically assigned to other divisions.

M-E-A Divisions: That portion of the ship from the keel up to and including deck 3, between frame 54 and frame 109, and the interior of machinery casings, uptakes and stacks above, except those spaces specifically assigned to other divisions. In addition, all machinery and equipment pertaining to fueling, main propulsion, auxiliary and / or electrical equipment of the ship in whatever spaces such equipment may be located.

C & N Division: That portion of the ship habitually used by Quartermasters, Signalmen, Radiomen, Radarmen and Yeomen; to include the signal bridge, pilot house, radio room, chart room, radar room, post office, aerographer's space, steering equipment other than electrical, navigation storerooms and the offices used by Yeomen. In addition, all weather decks above Boat deck and forward of frame 90.

Boat Division: All boats and Amphibious Landing Craft (this assignment to include both hull and machinery), the boat repair shop and boat gear storerooms. In addition, the Boat Deck and that portion of Deck 03 aft of frame 90.

R Division: That portion of the ship habitually used by carpenters mates, ship fitters and painters; more specifically the carpenter's shop, paint locker, C and R storerooms and all ground tackle gear.

H Division: That portion of the ship habitually used by pharmacists mates and hospital apprentices. More specifically the operating room, sick bay, isolation ward, doctor's offices, dispensary, dental office and medical storerooms.

Section 3. Assignment of Spaces

219. The various parts of the ship will be assigned to departments, divisions, and special details for berthing, sleeping and messing. The general principle followed should be to assign those spaces to departments, divisions, and special details who live, work, and have their stations in those spaces. In the cases where certain spaces are occupied by more than one division or special detail, the responsibility will be assigned to the activity occupying the majority of space, but who will provide assistance from the other occupants.

220. Division Assignments.

First Division: That portion of the ship from keel to trunk extending from the bow aft to frame 6A, except only those spaces specifically assigned to other divisions.

Second Division: That portion of the ship from keel to trunk extending from frame 6A aft to the transom, except only those spaces specifically assigned to other divisions.

M-E-A Division: That portion of the ship from the keel up to and including deck 3, between frame 5A and frame 109, and the interior of machinery casings, uptakes and stacks above, except those spaces specifically assigned to other divisions. In addition, all machinery and equipment pertaining to fueling, main propulsion, auxiliary and / or electrical equipment of the ship. In whatever spaces such equipment may be located.

C & R Division: That portion of the ship habitually used by Quartermasters, Signalmen, Radiomen, Radarmen and Yeomen; to include the signal bridge, pilot house, radio room, chart room, radar room, post office, navigator's space, steering equipment other than electrical, navigation storerooms and the offices used by Yeomen. In addition, all weather decks above Boat deck and forward of frame 20.

Boat Division: All boats and Amphibious Landing Craft (this assignment to include both hull and machinery), the boat repair shop and boat gear storeroom. In addition, the Boat Deck and that portion of Deck 02 aft of frame 90.

S Division: That portion of the ship habitually used by carpenters mates, ship fitters and painters; more specifically the carpenter's shop, paint locker, C and R storerooms and all ground tackle gear.

H Division: That portion of the ship habitually used by pharmacists mates and Hospital apprentices. More specifically the operating room, sick bay, isolation ward, doctor's offices, dispensary, dental office and medical storeroom.

S Division: That portion of the ship habitually used by Ship's Service Men, Storekeepers, Ships Cooks, Bakers, Stewards, Cooks, and Steward's Mates. More specifically, the cabin and cabin pantry, all officers staterooms, wardrooms and wardroom pantrys, galley, bake shop, meat and provision issue and storerooms and Supply Department Offices. In addition, the Laundry, Barber Shop, Tailor Shop, Soda Fountain and Ship's Store.

Troops: When troops are aboard they shall be responsible for all troop living compartments, troop's mess hall, heads and cargo holds containing troop equipment and troop ammunition stowage.

Section 6. QUARTERS BILL

221.

DIVISION	PARADE	FOUL WEATHER
1st	Upper Deck - Stbd, Side #2 Hatch	Upper Deck - Stbd side, Frame 55-75.
2nd	Upper Deck - Port, Side - Frame 110-125	Upper Deck - Port side, Frame 90-110.
Boat	Deck 02, Port Side	Mess Compartment - Stbd side.
A-E-M	Deck 02, Stbd Side	Mess Compartment - Port side.
C & N	Upper Deck-Stbd Side - Frame 110-125	Upper Deck - Stbd side, Frame 99-110.
R	Upper Deck - Port Side #2 Hatch	Upper Deck - Port side, Frame 55-70
H	Upper Deck - Port Side, Frame 55-70	2nd Deck - Frame 60-65
S	Upper Deck - Midships Frame 115	2nd Deck - Frame 55

222. Parade for Reports. The Executive Officer will receive reports from department heads on Deck 02-Fr. 105. Department Heads will received reports from Dicision Officers at same location.

Section 7. Berthing Bill.

223. OFFICERS shall be assigned to staterooms by the First Lieutenant under the direction of the Executive Officer. The following rooms are available, as shown in Officer Berthing Plan of the Ship's Characteristic Book:

Deck 02	Captain's Cabin	1	1
	Executive Officers	SR 0201	1
		SR 0202	1
		SR 0204	1
		SR 0203	2
		SR 0206	2
		SR 0205	2
		SR 0208	2
		SR 0207	2
		SR 0210	2
			16
Deck 01		SR 0102	1
		SR 0103	2
		SR 0104	2
		SR 0105	2
		SR 0106	2
		SR 0108	2
		SR 0110	2
		SR 0112	2
		SR 0113	2
		SR 0114	2
		SR 0115	2
		SR 0116	2
			23

224. The Transport Quartermaster is the Ship's Troop Billeting Officer and will prepare billeting plans for troop officers in accordance with the instructions contained in Section 2, Chapter XIX and Section 5, Chapter XXI of the Transport Doctrine, Amphibious Forces U.S. Pacific Fleet.

225. Troop Officers Quarters and Compartment Berthing Diagrams are shown in Ship's Characteristic Pamphlet, U.S.S. FELAND.

226. Crew's Berthing Assignment: Bunk space will be assigned by Division Officers under the supervision and direction of the First Lieutenant. Divisions will occupy the spaces indicated in the following table:

COMPARTMENT	CAPACITY	NO.MEN	EXCESS	DIV.
C.P.O. Quarters	24	1		1st
		2		2nd
		2		Boat
		3		"R"
		1		"A"
		1		"E"
		3		"M"
		3		"S"
		5		C&N
		1		"H"
	Total-24	22	2	
Sail Locker	1	1		"R"
Master-at-Arms	1	1		"R"
Dispensary	1	1		"H"
Medical Office	1	1		"H"
Dental Office	1	1		"H"
Ship's Office	3	3		C&N
Post Office	1	1		C&N
Barber Shop	2	2		"S"
Boatswains Mates	3	3		2nd
	Total-14	14	0	
A302-L	72	56		Boat
		10	6	"S"Cks-Bkrs
A203-L	40	40		C&N
A204-L	74	47		"M"
		14	0	"E"
		13		"A"
A106-L	7	7	0	"S"
A107-L	26	25	1	"S" StMs
A108-L	103	45		1st
		14	8	"R"
		10		"H"
		11		"S" SK-SSM
		15		C&N
C101-L	60	45	9	2nd
		6		"H"
	Total-382	358	24	
	Grand Total-420	394	26	

226, (cont'd)

BERTHING BY DIVISIONS

DIVISION	NO. MEN	COMPARTMENT	
"A"	13	A 204-L	
"E"	14	A 204-L	
C&N	55	A 203-L	40
		A 108-L	15
"R"	14	A 108-L	
"H"	16	A 108-L	10
		C 101-L	6
"M"	47	A 204-L	
Boat	56	A 302-L	
1st	45	A 108-L	
2nd	45	C 101-L	
"S"	53	A 302-L	10
		A 108-L	11
		A 107-L	25
		A 106-L	7
Total: 358			

227. Hammocks: Hammocks will be scrubbed by personnel and turned into the sailmaker via a division check-off list upon coming aboard ship and will be reissued through division officers upon leaving the ship.

228. Cots: Cots will be under the cognizance of the First Lieutenant. They will be issued to responsible men only at the request of a Division Officer, signed by the Head of the Department, on a Title "B" custody receipt. Cots will be used only in offices, storerooms and shops where adequate stowage is available during the day.

229. Lockers: A locker is provided for each bunk, numbered as the bunk is numbered, and in same compartment as the bunk. Clothes will be stowed in the locker in accordance with a general plan outlined by the Division Chief Petty Officer. Peacoats will be hung upon jackstays provided for that purpose outboard in each compartment.

230. The "H" Division shall not be assigned to cleaning details in the living compartments forward of frame #53 under this bill.

Section 8. Messing Bill

231. The SUPPLY OFFICER is responsible for the procurement, stowage, preparation and serving of food of the General Mess. The Supply Officer shall issue and post instructions for the proper functioning of all activities concerning the General Mess which comes under his cognizance. He is responsible for the administration of the crew's galley, bake shop, and is in charge of the cold storage, provision storerooms and issuing rooms. He shall be responsible for the preparation of menus embodying a properly balanced ration and shall submit to the Commanding Officer for his approval via the Executive Officer, not later than Friday of each week, a "bill-of-fare" for the succeeding week.

232. The FIRST LIEUTENANT is responsible for the messing arrangements of crew and troops, including the cleanliness and good condition of all mess gear, cleanliness and upkeep of messing compartments and the disposal of garbage. See Chapter 27, U.S. Navy Regulations, 1920. The First Lieutenant will be assisted in the messing arrangements for troops by the Troop Mess Officer designated by the Troop Commander.

233. The MEDICAL OFFICER shall make frequent inspections of the galley, bake shop, steam tables, serving tables, mess tables, mess gear, scullery, messes, and all messing activities. He shall advise the First Lieutenant and Supply Officer of the best methods of sterilization and other pertinent matters falling under his general cognizance. He shall also physically examine, each week, all personnel having to do with the preparation and serving of food. The results of both the above inspections shall be submitted in writing to the Executive Officer, with copies to the First Lieutenant and Supply Officer, not later than Friday of each week. He shall report to the Executive Officer immediately any unsanitary conditions or practices. See Article 1320 (2), U.S. Navy Regulations, 1920.

234. The CHIEF POLICE PETTY OFFICER, under the First Lieutenant, shall be responsible for the cleanliness and good condition of the mess gear, messing spaces and scullery. Assistant Police Petty Officers will be detailed in charge of scullery, messing spaces and mess cooks, and to regulate the movement of the mess lines within the messing compartments. The Chief Police Petty Officer will require a weekly inventory of mess gear to be taken and will submit this inventory to the Supply Officer with the request for replacements of missing or broken items.

235. The CHIEF COMMISSARY STEWARD shall supervise the preparation and serving of food. He shall be responsible that no deviation from the approved bill-of-fare occurs and that the food is prepared exactly as specified therein. He will have submitted to the Officer of the Deck a sample portion of each meal fifteen minutes before it is served. He shall see that meals are kept hot for men authorized to be late by the Officer of the Deck.

96-80

Section 8. Messing Bill

[illegible] The CHIEF OFFICER is responsible for the procurement, stowage, preparation and serving of food of the General Mess. The Supply Officer shall issue and post instructions for the proper functioning of all activities concerning the General Mess which come under his cognizance. He is responsible for the administration of the crew's galley, bake shop, and is in charge of the cold storage, provision storerooms and issuing room. He shall be responsible for the preparation of menus embodying a properly balanced ration and shall submit to the Commanding Officer for his approval via the Executive Officer, not later than Friday of each week, a "bill-of-fare" for the succeeding week.

[illegible] The FIRST LIEUTENANT is responsible for the messing arrangements of crew and troops, including the cleanliness and good condition of all mess gear, cleanliness and upkeep of messing compartments and the disposal of garbage. See Chapter 27, U.S. Navy Regulations, 1920. The First Lieutenant will be assisted in the messing arrangements for troops by the Troop Mess Officer designated by the Troop Commander.

[illegible] The MEDICAL OFFICER shall make frequent inspections of the galley, bake shop, steam tables, serving tables, mess tables, mess gear, scullery, messes, and all messing activities. He shall advise the First Lieutenant and Supply Officer of the best methods of sterilization and other pertinent matters pertaining under his general cognizance. He shall also physically examine, each week, all personnel having to do with the preparation and serving of food. The results of both the sanitary inspections shall be submitted in writing to the Executive Officer, with copies to the First Lieutenant and Supply Officer, not later than Friday of each week. He shall report to the Executive Officer immediately any unsanitary conditions or practices. See Article 1320 (2), U.S. Navy Regulations, 1920.

[illegible] The CHIEF POLICE PETTY OFFICER, under the First Lieutenant, shall be responsible for the cleanliness and good condition of the mess gear, messing spaces and scullery. Assistant Police Petty Officers will be detailed in charge of scullery, messing spaces and mess cooks, and to regulate the movement of the mess cooks within the messing compartments. The Chief Police Petty Officer will require a weekly inventory of mess gear to be taken and will submit this inventory to the Supply Officer with the request for replacements of missing or broken items.

[illegible] The CHIEF COMMISSARY STEWARD shall supervise the preparation and serving of food. He shall be responsible that no deviation from the approved bill-of-fare occurs and that the food is prepared exactly as specified therein. He will have assigned to the Officer of the Deck a sample portion of each meal fifteen minutes before it is served. He shall see that meals are kept hot for men authorized to be late by the Officer of the Deck.

236. The OFFICER OF THE DECK shall notify the Chief Commissary Steward the number of rations to be kept for men authorized to be late. He shall keep a memorandum of the number of men away from the ship on liberty. The Supply Officer or one of his assistants shall consult this memorandum in order to prepare the proper number of meals, thus avoiding waste of food.

237. EARLY MEALS shall not be served except by permission or direction of the Executive Officer, First Lieutenant, or Duty Head of Department.

238. GENERAL MESS: Enlisted personnel, other than Chief Petty Officers, will mess cafeteria style in the mess compartment, starboard side main deck. Men going on watch will mess first, followed by balance of crew. Mess line will form on main deck in passage, port side. Outboard mess tables will be filled first. Each man will turn in his own dishes and tray, with dishes properly scraped, at scullery before dispersing, through the door at forward end of mess compartment.

239. MESS COOKS.

a. Mess Cooks will be detailed from the various divisions as noted, and from Navy enlisted passengers on board as required.

b. A Mess Cook shall serve as such for a period of not more than three months unless he specifically requests a continuation of assignment.

c. Division Officers shall submit recommendations to the Executive Officer for the change in detail of messmen by the 25th of the 1st month of each quarter. Men who have been on board less than two months shall not be detailed as messmen.

d. Messmen will be assigned to the various duties in connection with the operation of the General Mess by the Chief Police Petty Officer. They will not be required to stand anchor watches or sea watches, but are required to attend quarters and drills. The liberty for messmen will be regulated by the Chief Police Petty Officer as approved by the Executive Officer.

e. Messmen shall keep themselves meticulously clean and will be held responsible for the cleanliness of messing facilities under their care. All messman shall wear white aprons while serving meals. Uniforms for cooks, bakers, butcher, and scullerymen will be clean undress whites with aprons; except that dungarees may be worn while handling stores. When off duty they shall be in the uniform of the day.

240. GENERAL PROCEDURE FOR MESSING SHIP'S COMPANY.

Meal Hours, ordinarily will be as noted below:

a. Breakfast:	0700
b. Dinner:	1200
c. Supper:	1700

NOTE: These hours are subject to temporary revision by orders of the Executive Officer.
Watch standers will be issued early meal tickets by the Chief Police Petty Officer.

241. Troop Mess: Troops will mess in troop mess compartment port side main deck. Details going on watch will mess first. Balance of troops will mess by units, each unit in charge of a NCO, according to alignment to be arranged by the Commanding Officer of troops. Troop mess line will form in passageway on starboard side main deck, flow forward, past serving tables, thwartship through passage at frame 75. Outboard portion of mess tables will be filled first. Each man will take his own tray with dishes to scullery, scrape the dishes, and disperse to after portion of ship via the port side of the main deck. Meal hours for Troops will be one half hour before time, set for Crew's Mess.

242. a. C.P.O. Mess: The Chief Petty Officer's mess shall be served in the C.P.O. mess room, amidships on the port side of the main deck.

b. The CPO Mess Treasurer has supervision over the mess cooks and compartment cleaners, and is responsible for the cleanliness of the mess room. Mess accounts shall be turned over to the Auditing Board not later than the fifth of the month.

c. The Chief Police Petty Officer shall be responsible for the proper regulation of the Chief Petty Officers' Mess, which includes the bunk room.

243. OFFICERS' MESSES

a. All ship's officers, except the Captain, will mess in the Wardroom and be members of the Wardroom Mess.

b. Steward's Mates will subsist on the Officers' or General Mess, as directed by the Executive Officer.

c. Troop Officers will mess with ship's officers in the Wardroom. Seating will be according to rank, Army, Marine or Navy. The senior Army or Navy Officer embarked will furnish the Wardroom Mess Treasurer with a list, giving the names, rank, organization, and dates on board, inclusive, specifying first and last meal.

210. MESS HOURS AT FOR PRESENT SHIPS COMPANY.

Mess Hours, ordinarily will be as noted below:

a. Breakfast: 0700
b. Dinner: 1200
c. Supper: 1700

NOTE: These hours are subject to temporary revision by orders of the Executive Officer.

Watch standers will be issued early meal tickets by the Chief Petty Officer.

211. Troop Mess: Troops will mess in troop mess compartment port side main deck. Details going on watch will mess first. Balance of troops will mess by units, each unit in charge of a NCO, according to alignment to be arranged by the Commanding Officer of troops. Troop mess line will form in passageway on starboard side main deck, flow forward, pass serving tables, thwartship through passage at frame 75. Outboard portion of mess tables will be filled first. Each man will take his own tray with dishes to scullery, scrape the dishes, and dispose to other portion of sink via the port side of the main deck. Meal hours for Troops will be one half hour before time, set for crew's mess.

212. a. C.P.O. Mess: The Chief Petty Officer's mess shall be served in the C.P.O. mess room, midships on the port side of the main deck.

b. The CPO Mess Treasurer has supervision over the mess cooks and compartment cleaners, and is responsible for the cleanliness of the mess room. Mess accounts shall be turned over to the Auditing Board not later than the first of the month.

c. The Chief Petty Officer shall be responsible for the proper regulation of the Chief Petty Officers' Mess, which includes the lunch room.

213. OFFICERS' MESSES

a. All ship's officers, except the Captain, will mess in the Wardroom and be members of the Wardroom Mess.

b. Steward's Mates will wait on the Officers' or General Mess, as directed by the Executive Officer.

c. Troop Officers will mess with ship's officers in the Wardroom. Seating will be according to rank, Army, Marine or Navy. The senior Army or Navy Officer messed will furnish the Wardroom Mess Treasurer with a list, giving the names, rank, organization, and dates on board, inclusive, specifying first and last meal.

d. Mess accounts will be handled in accordance with Articles 1439 and 1440, U.S. Navy Regulation, 1920.

244. WARDROOM MESS REGULATIONS

a. A Mess Treasurer shall be elected, by a majority vote of the members of the mess, subject to the approval of the Commanding Officer who shall also set the term of service.

b. No member of the mess who has served as Mess Treasurer shall, unless he so desires, be elected to serve as such again until all eligible members of the Mess have served.

c. A Mess Caterer shall be elected at the same time as the Mess Treasurer. He will be in charge of the preparation of menus, procurement, preparation and service of food. The Caterer shall not handle any of the mess funds or accounts, responsibility for such resting solely with the Mess Treasurer.

245. MESS TREASURERS are specifically charged with the following:

a. The handling of all Mess Funds, both collections and disbursement.
b. Custody of Wardroom equipment.
c. Preparation of communications in the name of the Wardroom Mess.
d. The seating of officers and guests.
e. The formulation and posting of regulations for Steward's Mates.
f. Officer's Wardrooms, pantries, galleys, and unoccupied officer rooms. He will assign steward's mates to specific duties and regulate their liberty subject to the approval of the Executive Officer; instruct them as to the proper manner of performing their duties, and exercise close supervision over their conduct and manner of performing their duties at all times.

246. MESS ACCOUNTS: The treasurers of the Wardroom and the C.P.O. Messes shall each keep a current cash book in which all cash receipts and expenditures shall be entered as occuring. One page shall be used exclusively for receipts, another for expenditures. Entries shall be in the handwriting of the treasurer who shall initial all receipts. Expenditures shall be substantiated by receipted vouchers or initialed by the person to whom paid.

247. Not later than 5 days after the end of the month, the mess books shall be audited by a board of three officers, and a typed statement shall be compiled and checked by the auditors for submission to the C.O.

Section 9. Cleaning and Preservation Bill

248. The First Lieutenant shall be responsible for the cleanliness, good order, efficiency, neat and trim appearance of the ship as a whole. He shall be responsible for the cleanliness and good condition of all compartments, holds, double bottoms and all bulkheads, doors, valves, and pipes within them, except those specified as coming under the supervision of other departments. He shall be responsible for the cleanliness and good condition of all mess gear to the crew.

249. The Engineering Officer shall be responsible at all times for the good order, cleanliness, and maintenance of all compartments within the limits of the Engineering Department. He shall be responsible for shaft alleys, fuel oil tanks and bunkers, engineering storerooms, work shops, engineering living spaces and all compartments and double bottoms accessible through the engineering spaces.

250. The Gunnery Officer shall be held responsible for the cleanliness and good condition of the armament and all appurtenances connected therewith; of all ammunition stowage spaces and ordnance workshops.

251. The Navigation Officer shall be responsible for the care and good order of the steering gear, in general, except steering engines and steering motors; for all the compartments occupied by the steering machinery, the chart room, radio and radar rooms, etc., and all instruments and apparatus, except electrical, directly or indirectly connected with the navigation of the ship.

252. Supply Officer. The Supply Officer is responsible for the cleanliness and good condition of the crew's galley, bakeshop, butcher shop, vegetalbe preparation room, other commissary spaces including cold storage compartments, issue rooms and supply department storerooms and offices.

253. The Medical Officer is responsible for the cleanliness, upkeep and good condition of the sick bay, operating room, dental office, offices, diet kitchen, medical storerooms and other spaces assigned to the medical department.

254. The Mess Treasurer shall be responsible for the cleaning and upkeep of officer's wardrooms, pantries and galleys. He shall assign steward's mates to the cleaning and upkeep of officer's staterooms, wardrooms, pantries and galley. Individual officers are responsible for the upkeep of their own staterooms.

255. Division Officers are responsible for the cleanliness, preservation and good condition of all compartments, hatches, watertight doors, and mechanical devices for the safety of the ship, located within the section of the ship assigned to them.

a. Each Division Officer shall inspect his part of the ship weekly, fill out the weekly hull report and submit the same to the First Lieutenant or Engineering Officer not later than Friday. The necessary repairs or work required to maintain his part of the ship in proper state of upkeep will be reported.

Section 9. Cleaning and Preservation Bill

248. The First Lieutenant shall be responsible for the cleanliness, good order, efficiency, neat and trim appearance of the ship as a whole. He shall be responsible for the cleanliness and good condition of all compartments, holds, double bottoms and all bulkheads, doors, valves, and pipes within them, except those specified as coming under the supervision of other departments. He shall be responsible for the cleanliness and good condition of all mess gear to the crew.

249. The Engineering Officer shall be responsible at all times for the good order, cleanliness, and maintenance of all compartments within the limits of the Engineering Department. He shall be responsible for shaft alleys, fuel oil tanks and bunkers, engineering storerooms, work shops, engineering living spaces and all compartments and double bottoms accessible through the engineering spaces.

250. The Gunnery Officer shall be held responsible for the cleanliness and good condition of the armament and all gunnery equipment, including all ammunition stowage spaces and armorers workshops.

251. The Navigation Officer shall be responsible for the care and good order of the steering gear, in general, except steering engines and steering motors; for all the compartments occupied by the steering machinery, the chart room, radio and radar rooms, etc., and all instruments and apparatus, except electrical, directly or indirectly connected with the navigation of the ship.

252. Supply Officer. The Supply Officer is responsible for the cleanliness and good condition of the crew's galley, bakery, butcher shop, vegetable preparation room, other food preparation spaces including cold storage compartments, laundry rooms and supply department storerooms and offices.

253. The Medical Officer is responsible for the cleanliness, upkeep and good condition of the sick bay, operating room, dental office, offices, diet kitchen, medical storerooms and other spaces assigned to the medical department.

254. The Mess Treasurer shall be responsible for the cleaning and upkeep of officers' washrooms, pantries and galleys. He shall assign stewards mates to the cleaning and upkeep of officer's staterooms, washrooms, pantries and galley. Individual officers are responsible for the upkeep of their own staterooms.

255. Division Officers are responsible for the cleanliness, preservation and good condition of all compartments, hatches, watertight doors, and mechanical devices for the safety of the ship, located within the section of the ship assigned to them.

a. Each Division Officer shall inspect his part of the ship weekly, fill out the weekly mail reports and submit the same to the First Lieutenant or Engineering Officer not later than Friday. The necessary repairs or work required to maintain his part of the ship in proper state of upkeep will be reported.

b. This report shall then be entered in the hull book in the First Lieutenant's Office and submitted to the Commanding Officer on Monday of the week following.

256. Painting will be done in accordance with Bureau of Ships Painting Instructions. Rubber gaskets of doors, hatches, etc., will be kept free from paint. Whenever steel or metal surfaces are subject to constant contact with other materials where serious corrosion will not result, such surfaces will be kept bright.

257. Watertight doors and hatches, unless otherwise noted, belong to the division into whose part of the ship they swing, except those that are locked. In this case doors, except their exposed sides and fittings, belong to the division which has the locked compartment.

258. Ladders belong to the lower level from which they lead. Canopy covers and outside of hatch coamings and knife edges belong to the part of the ship which surrounds them. The inside of a coaming belongs to the division to which the ladder belongs. The insides of trunks and skylights belong to the division having the outside.

259. Fire hose will be scrubbed by the division to which plugs are assigned. Reports will be made in weekly hull reports that all fire fighting equipment is in good condition and in place, or otherwise, as the case may be and that all CO2 fire extinguishers, for which tests are due, have been weighed during the period covered by the report. The man actually doing the weighing will initial the hull report for each extinguisher weighed.

260. The First Lieutenant will be responsible for cleanliness of the ship's side. The Ship's Boatswain will supervise a side cleaning detail furnished by the Deck Divisions.

261. Messmen will be used as compartment cleaners in the mess compartments under the direction of the Chief Police Petty Officer. Police Petty Officers will be responsible for the cleanliness of the mess compartments.

262. Great care must be exercised by all hands to see that <u>safety precautions</u> are carefully observed prior to men entering double bottoms, tanks, voids and cofferdams.

263. <u>Crew Living Compartment</u> shall be cleaned by compartment cleaners detailed from the personnel occupying the compartments. Where the personnel of several divisions occupy the same compartment, the Senior Division Officer will be held responsible for the cleanliness and upkeep of the entire compartment. Compartment cleaning details shall be assigned for one month and rotated, so that all sections occupying a living compartment will participate equally in supplying men for these details.

264. All men must sleep in their regularly assigned bunks unless specifically authorized to sleep elsewhere. Division Officers shall keep the Executive Officer informed of men to sleep in spaces outside their assigned compartments.

265. Troop Living Compartments, Wash Rooms and Heads will be cleaned in accordance with Section 9, Chapter XXI of the Transport Doctrine, Amphibious Forces, U.S. Pacific Fleet.

Section 10. Inspection Bill

266. The Executive Officer, Heads of Departments and other officers charged with the preparation of this bill will become thoroughly familiar with the chapters of U.S. Navy Regulations covering their individual duties and the provisions of Chapter 37, with particular attention to Article 1360.

267. Division Officers will inspect their respective parts of the ship daily before quarters. If quarters are not being held, this inspection will be made prior to 0900. Personnel will be inspected at every muster at quarters. Division Officers will also conduct weekly inspections of compartments, machinery and appurtenances, to ascertain the state of cleanliness and material upkeep.

268. Captain's Inspections. Inspection of lower decks, holds and engineering spaces will be held on Friday afternoon at 1315 when operations permit. All Department Heads, Ship's Yeoman, and Chief Police Petty Officer will muster on Deck 02, port side, frame 65, to accompany the Captain and Executive Officer. Engineering spaces may be alternated with other lower deck inspections. Division Officers or their representatives will stand by in their parts of the ship.

269. Inspection of personnel, upper decks, and messes will usually be held Saturday mornings at 0930.

270. All divisions will muster at Division Parades. After Division Officer muster and report absentees to the Executive Officer, they will return to their respective divisions, open ranks and stand by to receive the Inspecting Officer. The Commanding Officer, in company with the respective Heads of Departments, will then inspect all division personnel and weather decks. When the Commanding Officer and party approach the respective divisions, the following procedure will be followed:

271. Each Division Officer will fall in ranks with his division on the side from which the Captain is approaching. On the approach of the Captain, the Division Officer will call his division to attention. When the Captain is within six paces, the Division Officer will say, "Right hand salute." When the Captain is abreast the Division Officer, the Division Officer will say, for example, "Good Morning, Captain. First Division, forty men, thirty present at quarters. Two". The Division will then bring down their hands from the salute and the Captain and party will inspect the men.

272. Upon completion of the personnel inspection, Compartment cleaners will lay below to stand by their compartments and Division Officers will dismiss the divisions who will stay top-side, clear of inspecting party.
The inspection party, organized as for the Friday inspection, will then proceed to inspect upper decks and messes on a general route commencing with the upper decks forward and working down and aft; the Chief Police Petty Officer acting as guide.

INSPECTION

Section 3.2: Inspection Will

266. The Executive Officer, Heads of Departments and other officers charged with the preparation of this Bill will become thoroughly familiar with the chapters of U.S. Navy Regulations covering their individual duties and the provisions of Chapter 57, with particular attention to Article 1360.

267. Division Officers will inspect their respective parts of the ship daily before muster. If quarters are not being held, this inspection will be made prior to 0800. Personnel will be inspected at every muster at quarters. Division Officers will also conduct weekly inspections of equipments, machinery and equipments, to ascertain the state of cleanliness and material upkeep.

268. Captain's Inspections. Inspection of lower decks, berths and engineering spaces will be held on Friday afternoon at 1115 when operations permit. All Department Heads, Chief's Mess and Chief Petty Officer will muster on Deck 02, port side, frame 65, to accompany the Captain and Executive Officer. Engineering spaces may be alternated with other lower deck inspections. Division Officers or their representatives will stand by in their parts of the ship.

269. Inspection of personnel, upper decks, and messes will usually be held Saturday mornings at 0930.

270. All divisions will muster at Division Parades. After Division Officer muster and report absentees to the Executive Officer, they will return to their respective divisions, open ranks and stand by to receive the Inspecting Officer. The Commanding Officer, in company with the respective Heads of Departments, will then inspect all division personnel and working decks. When the Commanding Officer and party approach the respective divisions, the following procedure will be followed:

271. Each Division Officer will fall in ranks with his division on the side from which the Captain is approaching. On the approach of the Captain, the Division Officer will call his division to attention. When the Captain is within six paces, the Division Officer will say, "Right hand salute." When the Captain is abreast the Division Officer, the Division Officer will say, for example, "Good Morning, Captain. First Division, forty men, thirty present at quarters. Two". The Division will then bring down their hands from the salute and the Captain and party will inspect the men.

272. Upon completion of the personnel inspection, Department officers will lay below to stand by their departments and Division Officers will dismiss the divisions who will stay top-side, clear of inspecting party.

The inspection party, organized as for the Friday inspection, will then proceed to inspect upper decks and messes on a general rounds commencing with the upper decks. Forward and working down aft, the Chief Petty Officer taking as guide.

273. Notes taken during inspections will be submitted to the First Lieutenant for compilation into a report. After the inspection report has been approved by the Commanding Officer, a copy will be issued to all division officers who will take immediate steps to correct deficiencies noted.

274. When Troops Are Embarked the Commanding Officer of Troops and the First Lieutenant, or their designated representatives, will daily inspect troop quarters, heads, washrooms, mess halls, scullery and galley. Company or Unit Commanders will be in the compartments assigned their units during this inspection

CHAPTER III

EMERGENCY BILLS

Section 1. - General Quarters

275. Alarm Signals.

a. General Alarm.
b. Announcement over the public address system. - "All hands man your battle stations."

276. Secure Signals.

a. Announcement over the public address system - "Secure from General Quarters."
b. "Secure" over Battle and Ship's Service telephone systems to each Battle Station.

277. Reports.

a. The Gunnery or Fire Control Officer will receive reports of "Manned and Ready" and "_____ Station secured" over the Fire Control and Battle Telephone Systems and then ma make further report to the Executive Officer on the Bridge.

b. The other Heads of Departments shall receive similar reports from the Battle Stations within their Departments and make report of "_____Department manned and ready" or "_____ Department Secure" from General Quarters" to the Executive Officer on the Bridge.

Section 2. Battle Bill

General Provisions and Responsibilities.

278. The battle bill provides for:

(1) Obtaining the maximum offensive power and protection where an engagement with an enemy is imminent.
(2) Maintaining adequate offensive power and protection against surprise attack during war-time cruising.
(3) Landing of troops and supplies against enemy opposition.
(4) Security from surprise attack or sabotage while in port.

279. For the accomplishment of the foregoing provisions the bill contains three conditions of personnel readiness and two conditions of material readiness, namely:

(1) Personnel Readiness:
Conditions I, I-A & III.
(2) Material Readiness:
Conditions Afirm and Baker.

280 Conditions of Material Readiness

(1) Condition Baker: This is the normal wartime condition when cruising or at anchor when enemy contact is unlikely. Fittings, doors, valves, etc., marked "x" and "y" are closed. "z" and "w" fittings are open.
(2) Condition Affirm: Set when contact with the enemy is imminent or when landing troops. All "x", "y" and "z" fittings are closed. Those marked "w" are open.

281. Conditions of Personnel Readiness

(1) Condition III. This is the condition assumed to protect the ship against surprise attack. It is handled on most stations by standing one watch in three. Set by passing the word "Set Condition Three." Under Condition III, stations shall be sufficiently manned to handle the ship, provide power, maintain battle lookouts, maintain a signal and radio watch, and provide necessary ship's communication.

Two 40 mm's, two 20 mm's and two 3"/50 cal guns, as noted in personnel assignments shall normally be manned sufficiently to opern fire unless secured by order of the Commanding Officer. Fire Control communications shall be manned.

When in port, condition of personnel readiness will be governed by local conditions.

RESTRICTED

Section 2. Battle Bill

General Provisions and Responsibilities.

320. The battle bill provides for:

(1) Obtaining the maximum offensive power and protection where an emergency arises on every in bunkers.
(2) Maintaining adequate offensive power and protection against surprise attack during war-time operations.
(3) Landing of tr. s and supplies against enemy opposition.
(4) Security from surprise attack or sabotage while in port.

321. For the accomplishment of the foregoing provisions the bill contains three conditions of personnel readiness and two conditions of material readiness, namely:

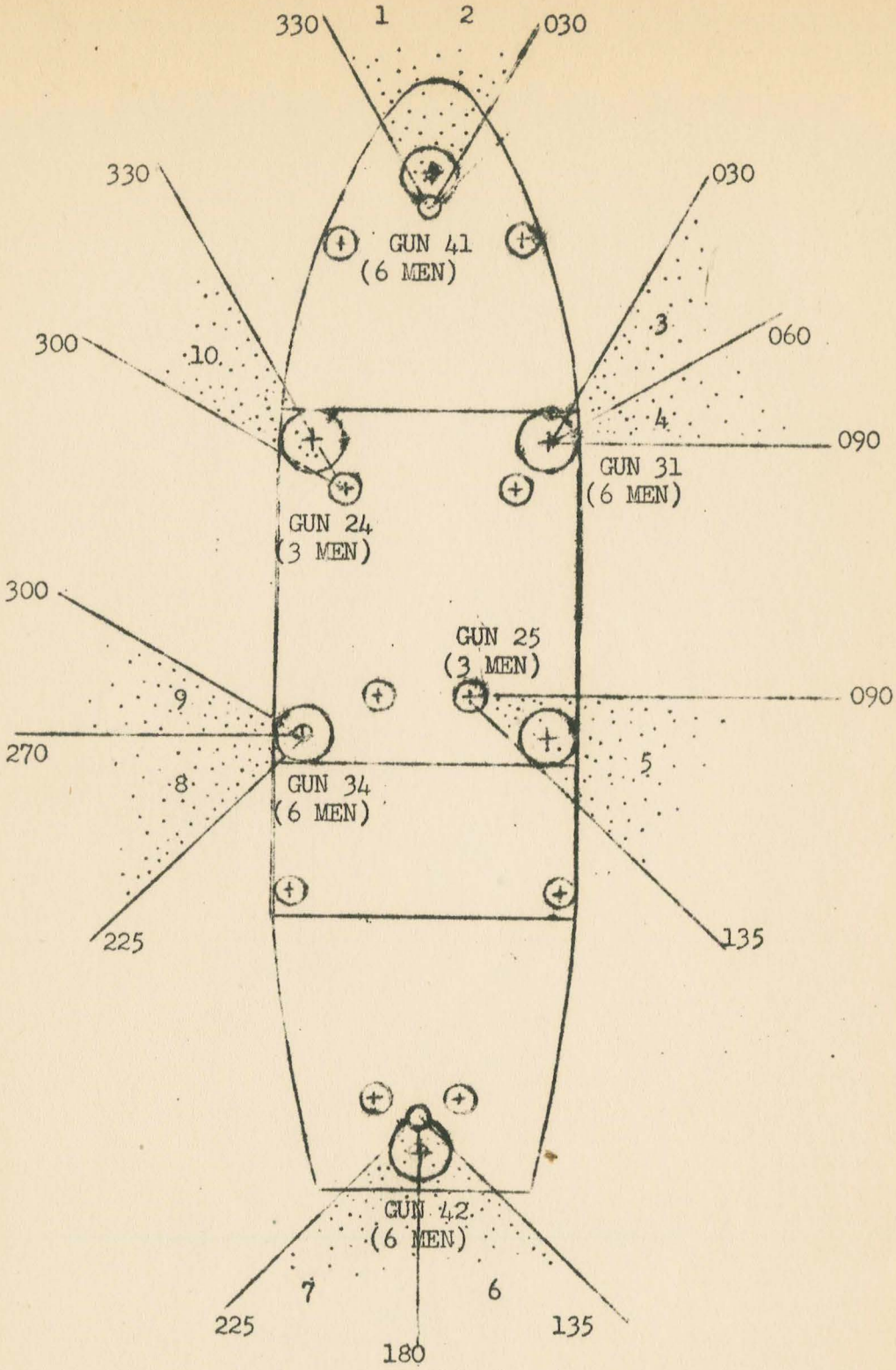
(1) Personnel Readiness:
Conditions I, I-A & III.
(2) Material Readiness:
Conditions AFlam and Baker.

322. Conditions of Material Readiness

(1) Condition Baker. This is the normal wartime condition when cruising or at anchor when enemy contact is unlikely. Fittings, doors, valves, etc., marked "x" and "y" are closed; "x" and "x" fittings are open.
(2) Condition AFlam. Sec when contact with the enemy is imminent or when lurking. Fittings "x", "y" and "x" fittings are closed. Those marked "x" are open.

323. Conditions of Personnel Readiness

(1) Condition III. This is the condition assumed to protect the ship against surprise attack. It is handled on most stations by standing one watch in three. Set by passing the word "Set Condition Three." Under Condition III, stations shall be sufficiently manned to handle the ship, provide power, maintain battle I routes, maintain a sound and radio watch, and provide necessary ship's communication.
Two 40 mm's, two 20 mm's and two 3"/50 cal guns, as noted in personnel assignments shall normally be manned sufficiently to open fire unless secured by order of the Commanding Officer. Fire Control communications shall be manned.
When in port, conditions of personnel readiness will be governed by local conditions.



Condition III gun stations are manned as shown in the above diagram, with one third of the crew acting as lookouts at all times. Lookouts continusly search their assigned sectors for half hour periods, and are relieved in rotation by the remainder of gun crew.

Lookouts are responsible for regularly testing phones of own station and of gun at opposite side of ship, and for immediately turning in phones to Central Control for replacement if they fail to operate properly.

The Gun Captain of each Condition III crew shall be responsible for the material condition of all equipment, training of crew, lookout discipline and reports.

(2) Condition I. As preparation for an engagement, all stations are fully manned and ready for action. This condition is set by ringing the general alarm, sounding "General Quarters" on the bugle, and passing the word "All hands to General Quarters".

(3) Condition I-A. All battle stations are manned as for condition I with the addition that detail for landing and manning the landing boats and handling cargo shall be at their stations and ready and the Beach Party standing by. This condition is set by ringing the general alarm, sounding "General Quarters" on the bugle and passing the word, "All hands man your I-A stations".

(4) Condition I-A-Easy: This is a modified Condition (I-A). It will be set by going to Condition (I-A) first, and then passing the word to stand easy. All battle stations will remain fully manned but only key positions - lookouts, phones, etc. - need remain alert. Other personnel will stand easy or sleep on station.

282. To establish the conditions of personnel readiness, the ship is divided into nine control stations as follows:

1. Ship Control
2. Fire Control
3. Boat Control
4. Damage Control
5. Medical Control
6. Cargo Control
7. Machinery Control
8. Mess Control
9. Beach Control.

283. At Condition I, Boat Crews, Beach Party, if aboard, and all passengers other than troops or casualties, will be "Reserve". Reserves shall be detailed by divisional officers to battle stations conforming to their respective ratings, if necessary, to Battle operations or to Reserve parties working as such with Damage Control units, ammunition supply, etc. Reserves should be fully utiliezed for the dual purpose of aiding the action and furnishing a pool of reserve strength, but should be instantly available for their primary duties when Condition I-A is set.

284. When possible, troops aboard will be organized to assist in duties at Condition I or I-A in duties for which they are qualified. Troops in Reserve will be assigned stations normally occupied by naval personnel and will man same when called for.

285. The personnel and station assignments for the three conditions of personnel readiness are tabulated below.

(1) The number of men shown in the table under Condition III shows the number of men necessary to stand the duty each watch.

(2) Condition I-A (except for Machinery Control and certain stations noted in tables) and Condition I are "All Hands" conditions.

PART TWO: PERSONNEL ASSIGNMENT

* Stations noted in I-A below are Watch & Watch.

1. SHIP CONTROL

NAVIGATING BRIDGE	Condition 1-A NO.	Condition 1-A DIV.	Condition I NO.	Condition I DIV.	Condition III NO.	1	2	3	4
Chief Quartermaster	1	C&N	1	C&N					
QM of Watch	1	C&N	1	C&N	1	C&N	C&N	C&N	C&N
BM of Watch			1	2nd	1	2nd	2nd	B	1st
Leadsman	1	C&N							
Helmsman*	2	C&N	2	C&N	2	1st	B	2nd	B
1-JV Phone*	2	C&N	1	C&N	1	B	B	B	B
Messenger	2	2nd	1	C&N	1	B	B	2nd	2nd
Chief Yeoman	1	C&N	1	C&N					
Engine Rm Teleg.	1	C&N	1	C&N					
AFTER CONTROL STATION									
Helmsman			1	C&N					
1-JV Phone			1	C&N					
STEERING ENGINE ROOM									
Machinist Mate *	2	A	1	A					
1-JV Phone			1	C&N					
Helmsman	1	C&N	1	C&N	1	B	B	B	B
SIGNAL BRIDGE									
Chief Signalman	1	C&N	1	C&N					
Signalmen *	8	C&N	11	C&N	3	C&N	C&N	C&N	C&N
Aerographer	1	C&N	1	C&N					
Searchlights			(See Mach. Control)						
C.I.C & RADAR ROOM									
Chief Radarman	1	C&N	1	C&N					
Radarmen *	8	C&N	7	C&N	3	C&N	C&N	C&N	
RADIO ROOM									
Chief Radioman	1	C&N	1	C&N					
Radiomen *	10	C&N	12	C&N	4	C&N	C&N	C&N	C&N
Radio Technicians*	2	C&N	2	C&N					

2. FIRE CONTROL

FIRE CONTROL STATION	Condition 1-A NO.	Condition 1-A DIV.	Condition 1 NO.	Condition 1 DIV.	Condition III NO.	Condition III DIV. 1.	2.	3.
1-JV Phone	1	"S"	1	"S"				
Rangefinder	1	2nd	1	2nd				
	1	"S"	1	"S"				
#1 GUN STATION								
Gun #40-1	5	1st	7	1st	6	1st	1st	1st
Gunner's Mate	1	1st	1	1st				
Fire Controlman	1	1st	1	1st				
Gun #20-1	2	1st	3	1st				
Gun #20-2	2	1st	3	1st				
40 MM Magazine			2	"S"				
#2 GUN STATION								
Gun #30-1	6	1st	9	1st	6	1st	1st	1st
Gun #30-2	6	1st	9	1st				
Gunner's Mate			1	1st				
Ammunition Handlers			4	"S"				
#3 GUN STATION								
Gun #20-3	2	C&N	3	C&N				
Gun #20-4	2	2nd	3	2nd	3	B	B	B
#4 GUN STATION								
Gun #20-5	3	"S"	3	"S"	3	"S"	"S"	"S"
Gun #20-6	3	"S"	3	"S"				
#5 GUN STATION								
Gun #30-3	6	2nd	9	2nd				
Gun #30-4	6	2nd	9	2nd	6	2nd	2nd	2nd
Gunner's Mate			1	2nd				
Ammunition Handlers			4	"S"				
#6 GUN STATION								
Gun #20-7	2	"M"	3	"M"				
Gun #20-8	2	"M"	3	"M"				
#7 GUN STATION								
Gun #40-2	5	2nd	7	2nd	6	2nd	2nd	2nd
Gunner's Mate	1	2nd	1	2nd				
Fire Controlman	1	2nd	1	2nd				
Gun #20-9	2	"S"	2	"S"				
Gun #20-10	2	"S"	2	"S"				
40 MM Magazine			2	"S"				

FIRE CONTROL (cont'd)

	Condition 1-A		Condition I		Condition III			
	NO.	DIV.	NO.	DIV.	NO.	1	2	3
FORWARD CLIPPING RM.								
Fwd. Amm Hoist			1	1st				
Clipping			2	"S"				
Ammunition Passers			5	"S"(StM)				
AFTER CLIPPING ROOM								
Aft. Amm. Hoist			1	2nd				
Chief Gunner's Mate	1	2nd	1	2nd				
Clipping			2	2nd				
Ammunition Passers			5	"S"(StM)				
FWD 3"/50 MAGAZINE								
Gunner's Mate			1	1st				
Ammunition Handlers			4	"S"(StM)				
Sprinkling Valve			1	1st				
AFTER 3"/50 MAGAZINE								
Gunner's Mate			1	2nd				
Ammunition Handlers			4	"S"(StM)				
Sprinkling Valve			1	2nd				
3"/50 DIRECTORS								
Fwd. Director			1	1st				
Aft Director			1	2nd				

3. BOAT CONTROL

	Condition 1-A		Condition I	
	NO.	DIV.	NO.	DIV.
NAVIGATING BRIDGE				
1-JV Phone *	(See Ship Control)			
#608 Radio *	2	C&N		
FORWARD NETS				
P.O.-in-Charge	1	"R"		
1-JV Phone *	2	"S"		
AFTER NETS				
P.O.-in-Charge	2	"R"		
AFT CONTROL STATION				
P.O.-in-Charge	1	C&N		
Signalmen	2	C&N		
1-JV Phone *	2	C&N		
CONTROL BOAT & SLAVAGE BOAT				
610 Radios	2	C&N	2	C&N
Coxswains	2	B	2	B
Engineers	2	B	2	B
Bowhooks	2	B	2	B
LANDING BOATS				
Coxswains	14	B	14	B
Engineers	14	B	14	B
Bowhooks	14	B	14	B
BOAT REPAIR SHOP				
CMoMM	1	B		
MoMM's	2	B		
CM & SF	2	"R"		
DAVITS				
CBM	1	B		
Boatswain's Mates	6	B		

4. DAMAGE CONTROL

	Condition I-A		Condition I		Condition III			
	NO.	DIV.	NO.	DIV.	NO.	1	2	3
CENTRAL REPAIR STATION								
CCM	1	R	1	R				
CM & SF	1	R	4	R				
Engineers	1	M	12	M				
Electrician Mate	1	E	2	E				
Machinist Mate			1	A				
JV Phone *	1	R	1	C&N				
	1	C&N						
JZ Phone	1	R	1	R				
Soundings & Security Watch					1	R	R	R
CBM			1	B				
Boatswain's Mates			2	B				
MoMM			1	B				
FORWARD REPAIR STATION								
CM & SF	3	R	3	R				
Engineers	1	M	8	M				
Electrician Mate	1	E	1	E				
JZ Phone	1	C&N	1	C&N				
CMoMM			1	B				
Boatswain's Mates			2	B				
			1	R				
AFTER REPAIR STATION								
CSF	1	R	1	R				
CM & SF	2	R	3	R				
Engineers	1	M	8	M				
Electrician Mate	1	E	2	E				
JZ Phone	1	C&N	1	C&N				
MoMM			1	B				
Boatswain's Mates			2	B				
			1	R				
Machinist Mate			1	A				

5. MEDICAL CONTROL

	Condition I-A NO.	Condition I-A DIV.	Condition I NO.	Condition I DIV.
#1 DRESSING STATION(SICK BAY)				
CPhM	1	"H"	1	"H"
Corpsmen	7	"H"	7	"H"
Stretcher Bearers	2	"S"(StM)	2	"S"(StM)
#2 DRESSING STATION(TROOPS MESS HALL)				
Corpsmen	2	"H"	2	"H"
Stretcher Bearers	4	"S"(StM)	4	"S"(StM)
#3 DRESSING STATION(#5 HOLD)				
Corpsmen	1	"H"	1	"H"
Stretcher Bearers	2	"S"(StM)	2	"S"(StM)
FIRST AID STATION(LOWER WARDROOM)				
Corpsmen	1	"H"	1	"H"
Stretcher Bearers	4	"S"(StM)	6	"S"(StM)

6. CARGO CONTROL

	Condition I-A NO.	Condition I-A DIV.
FORWARD HATCHES		
CBM	1	1st
Winchmen	2	1st
Hold #1	5	1st
Hold #2	7	1st
AFTER HATCHES		
CBM	1	2nd
Winchmen	2	2nd
Hold #5	12	2nd

Note: Men from Hold #5 will handle port davit boat lines and gangway as necessary.
Men from Holds #1 & #2 will handle starboard davit boat lines.
Seamen from Beach Party will assist in cargo control when aboard.

7. MACHINERY CONTROL

	Condition I-A		Condition I		Condition III			
	NO.	DIV.	NO.	DIV.	NO.	1	2	3
AFTER ENGINE RM (MAIN CONTROL)								
CPO of Wathc	2	M	1	M	1	M	A	M
Oil Kings	2	M	1	M				
Throttle	2	M	1	M	1	M	M	M
Burners	2	M	1	M	1	M	M	M
Auxiliaries	2	M	1	M	1	M	M	M
Boilers	2	M	1	M	1	M	M	M
1 JV phone	2	M	1	M	1	M	M	M
Messenger	2	M	1	M	1	M	M	M
NOTE #1	At Condition I-A assignments on Watch and Watch basis.							
FORWARD ENGINE RM								
CPO of Watch			1	M				
Throttle	2	M	1	M	1	M	M	M
Burners	2	M	1	M	1	M	M	M
Auxiliaries	2	M	1	M	1	M	M	M
Boilers	2	M	1	M	1	M	M	M
1 JV Phone	2	M	1	M	1	M	M	M
SHAFT ALLEY								
Machinist Mates	2	A	1	A				
ICE MACHINES								
Machinist Mates	2	A	2	A	1	A	A	A
EVAPORATORS								
Machinist Mates	2	A	2	A	1	A	A	A
GYRO ROOM & CENTRAL CONTROL								
Elec. Mates	1	E	1	E	2	E	E	E
1-JV phone	2	E	1	E				
2-JV phone	2	E	1	E				
#1 SWITCH BOARD								
Elec. Mate					1	E	E	E
#2 SWITHC BOARD								
Chief Elec. Mate			1	E				
Elec. Mates	4	E	2	E	1	E	E	E
AUX. MAINTENANCE								
CPO of Watch	1	A	1	A				
Machinist Mates	2	A	2	A				
Elec. Mates	2	E	3	E	1	E	E	E

8. MESS CONTROL

GALLEY AND PANTRYS	Condition I-A NO.	Condition I-A DIV.	Condition I NO.	Condition I DIV.
Chief Steward	1	"S" (StM)		
Capt's Pantry	3	"S" (StM)		
Lower Wardroom	9	"S" (StM)		
Upper Wardroom	2	"S" (StM)		
Officers' Galley	5	"S" (StM)		
Ship's Galley	12	"S"		
Messcooks	14	"M"		

9. BEACH CONTROL

BEACH PARTY	Condition I-A NO.	Condition I-A DIV.	Condition I NO.	Condition I DIV.
CBM	1	"R"	1	"R"
Boatswain's Mate	1	1st	1	1st
Boatswain's Mate	1	2nd	1	2nd
Seamen	7	1st	7	1st
Seamen	9	2nd	9	2nd
Signalmen	3	C&N	3	C&N
Radiomen	5	C&N	5	C&N
Electrician's Mate	1	"E"	1	"E"
Ship Fitter	1	"R"	1	"R"
Carpenter's Mates	2	"R"	2	"R"
MoMM's	3	"A"	3	"A"
Fireman	1	"M"	1	"M"
Corpsmen	8	"H"	8	"H"

PERSONNEL ASSIGNMENTS

	FIRST			SECOND			BOAT			"C&N"			"R"		
Controls	I-A	I	III	I-A	I	III	I-A	I	III	I-A	I	III	I-A	I	III
Ship			3	2	1	6			15	42	48	41			
Fire	23	38	36	23	39	36			9	2	3				
Boat							58	48		9	2		5		
Damage								10		3	3		10	15	3
Medical															
Cargo	15			15											
Machinery															
Mess															
Beach	8	8		10	10					8	8		4	4	
Total:	46	46	39	50	50	42	58	58	24	64	64	41	19	19	3

	"M"			"E"			"A"			"S"			"H"		
Controls	I-A	I	III	I-A	I	III	I-A	I	III	I-A	I	III	I-A	I	III
Ship							2	1							
Fire	4	6								12	44	9			
Boat										2					
Damage	3	28		3	5			2		12	14				
Medical													12	12	
Cargo															
Machinery	28	15	38	11	9	15	9	8	7						
Mess	14									32					
Beach	1	1		1	1		3	3					8	8	
Total:	50	50	38	15	15	15	14	14	7	58	58	9	20	20	

CONDITION

Controls	I-A	I	III
Ships	46	50	65
Fire	64	130	90
Boat	74	50	
Damage	19	63	3
Medical	24	26	
Cargo	30		
Machinery	48	32	60
Mess	46		
Beach	43	43	
Total:	394	394	218

PERSONNEL ASSIGNMENTS (Cont'd)

At Condition III, the following full time Special Details are assigned:

Mess Cooks - -	First Div.	5 men
	Second Div.	5 "
	A,E, & M Divs.	4 "
		14 "
Spud Locker- -	First Div.	1 man
	Second Div.	1 "
		2 "

In addition, the Boat Division shall furnish two (2) spud locker men when ship is in port without troops aboard.

Section 3. Fire Bill

286. Any person discovering a fire shall give the alarm immediately, shall notify the officer of the deck, and shall make every effort to extinguish the blaze or to prevent its spreading. He shall make use of any fire-fighting equipment immediately available.

287. Emergency Signals:
(1) The General Alarm shall be sounded.
(2) The Ship's Bell shall be rung rapidly, then followed by - - - ONE stroke if the fire is forward.
TWO strokes if the fire is amidships.
THREE strokes if the fire is aft.
(3) Fire quarters shall be called on bugle (call 31), followed by - - - ONE blast if the fire is forward.
TWO blasts if the fire is amidships.
THREE blasts if the fire is aft.
(4) Word shall be passed over the Public Address system and by the Boatswain's Mates.

288. Officers' Stations and Duties:
(A) The Officer-of-the-Deck shall set condition Baker except for necessary access to the fire.
(B) The Executive Officer shall be in general charge at the scene of the fire.
(C) The First Lieutenant shall be in charge of the First Fire Party, and supervise fire-fighting activities.
He shall man the CO2 Central Station.
He shall station men ar Repair Stations for the issuance of equipment.
The "R" Division Officer shall man the Central Repair Station and establish and maintain necessary communication.
(D) The Navigating Officer shall relieve the deck.
If the ship be at anchor, docked, or moored alongside another vessel, he shall make preparations for weighing anchor, slipping cable or for casting off.
(E) The Chief Engineer Officer shall be in charge of the Engine Rooms.
He shall maintain the requisite pressure on fire mains.
He shall have competent men stationed at the manifold of the steam smothering system.
He shall man the blowers to shut down as required.
He shall have power on the anchor engine, cargo winches, boat winches, and ammunition hoists.
He shall get up steam in preparation for moving ship, if necessary.
He shall man the Emergency Diesel Fire Pumps, fore and aft.
(F) The Gunnery Officer shall inspect the magazines and clipping rooms.
He shall have stationed at sprinkler valves men prepared to flood threatened magazines and clipping rooms or to remove threatened explosives if need be.

288 (cont'd)

(G) The Boat Division Officer shall have the boat crews stand by their assigned boats in readiness to lower them.

(H) The Communications Officer shall secure secret and confidential publications.

(I) The Medical Officer shall be charged with the removal of the sick and the tending of the injured.

(J) The Supply Officer shall have men standing by all storerooms with keys for opening them if required. He shall make provision for saving public money and records.

(K) The Assistant Engineer Officer shall take station at the engineer's repair station and shall be in charge of the engineer fire party, if the fire is in the engineering spaces.

(L) Division Officer shall order all men without specific assignments to fall in at quarters, in readiness to lend assistance when and where required, and shall received from their Division Petty Officer, the muster reports of the fire stations assigned their divisions.

289. Fire Parties.

Fire Parties shall be organized, one Port Watch, and one Starboard Watch. The watch having the day's duty shall provide the First Fire Party. Such of the off-duty sections as are aboard shall be the Reserve Fire Party, and shall form in the vicinity of the fire, out of the way but in readiness to act when called upon.

The composition of the Fire Parties, Port and Starboard, and the equipment to be supplied shall be as follows:

A - FIRE HOSE PARTY

NO.	ITEM	LOCATION FWD & AFT	NO. MEN EACH WATCH	DIVISION RESPONSIBLE
1	"Y" Gate	Nearest Repair Sta.	1	C&N
2	$1\frac{1}{2}$" Hose	" " "	2	2nd
3	Applicators	" " "	2	1-C&N, 1-2nd
1	Double Female Coupling Double Male Coupling Adapter	" " "	1	2nd
4	CO_2 Extinguishers	Nearest Repair Sta 2-nearest scene of fire	4	2-C&N, 2-"A"
1	Damage Control Kit. (Axe, Sledge, Crow-bar Wrench, Wire Cutters)	Nearest Repair Sta.	1	2nd

289 (Cont'd)

B - SUPPLEMENTARY PARTY

NO.	ITEM	LOCATION	NO. MEN EACH WATCH	DIVISION RESPONSIBLE
1	Portable Cutting Outfit	FWD or AFT Repair Sta.	3	1-"R" 2-2nd.
2	Handy Billys	FWD Resister House	4	1st.
2	(Suction & Strainer for same)	or AFT Repair Sta.	2	C&N
1	Foam Gen. Nozzle (NPU)	Nearest Repair Sta.	1	1st.
3	Liquied Foam Cans	" " "	3	C&N
2	Rescue Breathing Outfits & Tenders	" " "	4	"R"
1	Asbestos Suit	" " "	1	1st
4	Battle Lanterns	" " "	2	"E"
1	Stretcher, pair of Blankets	Sick Bay	2	"H"
1	First Aid Kit	" "	1	"H"
1	Electrician's Mate		1	"E"

- - - - - - - - - - - - - - - - - - -

290. PHONE STATIONS

The following phone stations shall be manned for Port & Starboard watches.

CIRCUIT	LOCATION	DIV. RESPONSIBLE
JV	Bridge	C&N
JV	Central Repair Station	C&N
JZ	Central Repair Station	C&N
	Forward Repair	"S"
	After Repair	C&N
	Sick Bay	"H"
	CO_2 Room	"R"
	Forward Fire Pump	Boat
	After Fire Pump	Boat

291. Additional Division Stations:
The Divisions indicated shall supply stand-by, Port and Starboard Watches, at each of the following fireplugs:

WEATHER DECK FIREPLUGS (17) - One 2½" plug - One 1½" plug.

DECK	LOCATION	DIVISIONS RESPONSIBLE
Navigating Deck	(03) Fr. 57 - Stbd.	C & N
	" 86 - "	C & N
	" 59 - Port	C & N
	" 85 - "	C & N
Boat Deck	(02) Fr. 80 - Stbd.	Boat
	" 80 - Port	Boat
Upper Deck	(01) Fr. 17 - Stbd.	1st.
	" 31 - "	1st.
	" 51 - "	1st.
	" 82 - "	"S"
	" 109 - "	Boat
	" 51 - Port	1st.
	" 82 - "	"S"
	" 109 - "	Boat
Main Deck	(1) Fr.123 - Stbd.	2nd.
	" 123 - Port	2nd.
	" 147 - "	2nd.

- - - - - - - - - - - - - - -

BELOW DECK FIREPLUGS (26) - Two 1½" plugs.

Boat Deck	(02) Fr. 64 - Stbd.	"S"
	" 87 - "	"S"
Upper Deck	(01) Fr. 84 - Stbd.	"S"
	" 61 - Port	"S"
	" 71 - "	"S"
	" 108 - "	2nd.
Main Deck	(1) Fr. 32 - Stbd.	"S"
	" 35 - "	1st.
	" 82 - "	2nd.
	" 12 - Port	1st.
	" 20 - "	1st.
	" 62 - "	1st.
	" 111 - "	C & N (Y)

REFRIGERATION

201. Electrical Refrigeration Stations:

The Division Electrical Officer shall supply stand-by, first and Starboard batteries, at each of the following Refrigerator

MEATS DECK, REFRIGERATOR (23) - One 24" plug - One 14" plug.

DECK	LOCATION	DIVISIONS REFRIGERATED
Navigating Deck	(02) Fr. 17 - Stbd.	C & H
	" 29 - "	C & H
	" 39 - Port	C & H
	" 53 - "	C & H
Boat Deck	(02) Fr. 20 - Stbd.	Boat
	" 30 - Port	Boat
Upper Deck	(01) Fr. 17 - Stbd.	Lab.
	" 31 - "	Lab.
	" 73 - "	Lab.
	" 83 - "	"g"
	" 109 - "	Boat
	" 51 - Port	Lab.
	" 83 - "	"g"
	" 107 - "	Bath
Main Deck	(1) Fr. 127 - Stbd.	2nd.
	" 123 - Port	2nd.
	" 147 - "	2nd.

- - - - - - - - - - - - - - - - - -

ROAST DECK REFRIGERATOR (26) - Two 14" plugs.

DECK	LOCATION	DIVISIONS REFRIGERATED
Boat Deck	(02) Fr. 64 - Stbd.	"g"
	" 57 - "	"g"
Upper Deck	(01) Fr. 64 - Stbd.	"g"
	" 41 - Port	"g"
	" 73 - "	"g"
	" 109 - "	2nd.
Main Deck	(1) Fr. 72 - Stbd.	"g"
	" 32 - "	Lab.
	" 42 - "	2nd.
	" 12 - Port	Lab.
	" 20 - "	Lab.
	" 52 - "	Lab.
	" 111 - "	C & H (7)

291 (Cont'd)

DECK	LOCATION	DIVISIONS RESPONSIBLE
Second Deck	(2) Fr. 32 - Stbd.	C&N
	" 92 - "	2nd.
	" 110 - "	2nd.
	" 124 - "	2nd.
	" 142 - "	"S"
	" 145 - "	"S"
	" 34 - Port	"M"
	" 63 - "	"H"
	" 72 - "	"H"
	" 108 - "	2nd.
	" 145 - "	"S"
First Platform Deck	(3) Fr. 58 - Stbd.	"S"
	" 34 - Port	"S"

Six fireplugs in Engine Rooms manned by "M" Division.

292. SPECIAL STATIONS AND DUTIES

DUTY	LOCATION	NO. MEN EACH WATCH	DIV. RESP.
Stand-by to cast off lines.	Fo'cs'l Hd.	6	1st.
Stand-by to cast off.	Fantail	6	2nd.
Stand-by to man boats.	Boats Assigned		Boat
Stand-by to man Anchor Windlass.		2	"R"
Stand-by with keys to storerooms	Storerooms	4	"S"
Stand-by Magazine Sprinkler System.	Valves	6	3-1st 3-2nd
Helmsman	Bridge	1	C&N

293. SPECIAL PRECAUTIONARY MEASURES:

(A) The Master-at-Arms shall supervise the orderly removal of prisoners to places of safety. He shall provide a sufficient guard over all prisoners.

(B) All explosives and inflammables shall be removed from proximity of the fire.

(C) Water or foam shall not be used on any Electrical fire.

(D) Silence at the scene of the fire shall be mandatory, except for necessary orders. Above all there shall be no shouting.

(E) Ten foot applicators shall be used exclusively on weather decks. Use four foot applicators below decks.

294. Facilities available.

a. SALT WATER STREAM, FOG AND FOAM

1. Original fire main, running fore and aft in general on the starboard side under the main deck, the full length of the ship, with extensions and risers to plugs on the various deck levels starboard and amidships. This system is supplied by electrically operated pumps in the ENGINE ROOM. Weather deck plugs have one 2½" outlet and one 1½" outlet. Plugs below decks have 2 - 1½" outlets. This original fire main is cross connected forward in the C & N compartment (A-203L), and in #5 hold aft with the:
2. Diesel fire main, running the length of the ship under the main deck on the port side, with risers and extensions to port side plugs on the various decks. Diesel-driven pumps forward and aft, both having starting buttons on the pump supply salt water to this main from individual sea suctions at each pump.
3. Handy billys (gas driven) of which there are 4 on board. Due to their lack of lift, these pumps must be lowered over the side on saddles to within 7 feet of the water. They will not be used unless both fire mains are out of commission.
4. Fog Sprays may be obtained at each hose as follows:
   (1) By the use of reducing adaptors or "Y" gates at 2½" plugs at weather decks and portable 10' fog nozzle applicators stowed near plugs.
   (2) At the 1½" below decks plugs by connecting up the 4' applicators, located at each hose.
   (3) At handy billys by connecting any 1½" fog nozzle applicators to the handy billys' hose.
5. Foam sprays may be obtained at each plug and with handy billys by use of a foam nozzle and pick up tube connected to fire hose, the pick up tube being immersed in a 5 gallon can of Aer-o-Foam.

b. Built in CO2 Systems.

The CO2 supply is stowed in the CO2 bottle room on the second deck at frame 85. It consists of 24-50 lb. cylinders. The valves on these cylinders are kept closed and the seals uncut. ON ORDERS OF THE EXECUTIVE OFFICER, who will specify the number of cylinders to be released. Bottles are opened, releasing a supply of CO2 gas up to the control valves just outside the compartment. The appropriate control valves are then opened, piping the CO2 to the space where the fire exists. CO2 bottle room is manned by "R" Division.

c. Spaces to which CO_2 is piped are:

1. Gasoline stowage compartment.
2. #1 Hold (LTD).
3. Paint & lamp locker.
4. #2 Hold.
5. #4 Hold.
6. #5 Hold (LTD).
7. #5 lower Hold.
8. Carpenter Shop.
9. Diesel Generator Room

In addition there are locally controlled systems as follows:

1. Five bottles at after bulkhead of gasoline stowage compartment controlled by valve at foot of ladder to C & N compartment (A 203 L).
2. Two bottles in Emergency Diesel Generator Room, Fr. 148, controlled by valve outside door to compartment.
3. Six bottles in each engine room, in banks of two, with hose and horn attached.

d. STEAM SMOTHERING SYSTEMS

Both engine rooms are fitted with Steam Smothering Systems connected to valves on 2nd deck. Valve for the forward engine room is on forward bulkhead of troop compartment (B 201-L). After engine room valve is located in passage, opposite door to Troop's Head, B-207.

e. BUILT IN FOG SPRAY

A built in fog spray system with open valves is installed above Gasoline Space in #1 hold and at forward bulkhead of #2 hold with a control valve on 2nd deck at Fr. 34 amidships, manned by "R" Division.

f. AER-O-FOAM SYSTEM

A fixed foam pressure proportioner is installed in each engine room with pipe connections to the fire main. A semi-portable pressure proportioner is located at both the forward and after repair stations.

g. PORTABLE EXTINGUISHERS 15 pound CO_2.

147 are distributed about the ship, including one in each boat.

295. SECURE:

(A) Word to secure shall be passed over the Public Address system and by the Boatswain's Mates.
(B) All materials cut loose shall be returned to assigned places.
(C) All intact fire-fighting equipment shall be returned to the station from which taken, shall be checked in and secured; replacements shall be made where needed. Damaged or expended equipment shall be stowed to the carpenter shop.
(D) Any boats that shall have been lowered shall be secured as ordered by the Officer of the Deck.
(E) All crew not assigned specific duties shall fall in at regular quarters and shall be mustered by their respective Division Officers.

Section 4. Collision Bill

296. Emergency Signals:
a. One long blast on siren.
b. Word is passed on general announcing system and by Boatswain's Mate as to location of damages.
c. General Alarm.

Secure Signals:
a. Three blasts on isren.
b. "Secure from Collision Quarters" over general announcing system and by Boatswain's Mates.

297. General Duties:
a. The securing of all watertight fittings, and isolation of affected compartments is of primary importance. All men not having Damage Control Stations will fall in at Division Parade. In the vicinity of the Collision, all means available shall be used to prevent the spread of water.
b. Division Officers shall supervise the securing of compartments assigned to their divisions. Care shall be taken that no man is sealed within a compartment.

c. If at anchor, make preparations for getting underway.

298. Special Details:
a. Repair Party: - "R" Division artificers, with the First Lieutenant in Charge, and the Carpenter as an assistant, shall form a repair party in the vicinity of the collision. They shall be equipped to take soundings, shore bulkheads, blank ventilation ducts, cut out fire risers and carry out such other repairs as may be necessary to localize damage. Talker will man telephone nearest repair party to establish communication with the Repair Station.
b. Counterflooding Party: - Men from "M" Division flood controls and prepare to counterflood or shift ballast if ordered.
c. Boat Crews: - Man all boats.
d. Searchlights: - If collision is at night, electricians man all searchlights.
e. Electrician: - Rig floodlights as required.

299. Officer's Stations and Duties:

a. Officer of the Deck: - Sounds the alarm as soon as collision appears imminent. Maneuvers ship to minimize danger and damage. If at anchor, prepare to veer, rig in booms and clear the side as far as possible.

b. Executive Officer: - In general charge, attended by a Yeoman. Establishes communication with Repair Station by nearest telephone. Talker furnished by Executive Officer's Office.

c. First Lieutenant: - In direct charge at scene of collision.

d. Navigator: - Relieves deck. Informs himself of course and distances to the nearest land. Has assistant prepare to issue charts and navigational instruments for abandoning ship.

e. Gunnery Officer: - Supervises the preparation of diving gear.

f. Engineer Officer: - In Engineroom. Puts pumps, on drainage system, to flooded compartments, prepares to correct serious trim or list by transfer of water or fuel as directed. Provides power for winches, anchor gear, davits, submersible pumps and searchlights.

g. Division Officer: - Make certain the prescribed watertight doors, hatches, etc., in their respective parts of the ship are closed as required herein, then muster their divisions at division parades.

h. Communication Officer: - When directed by the Executive Officer, makes distress signals. Takes steps to safeguard secret and confidential publications.

i. Supply Officer: - In supply office. Provides for removal of public funds and records.

j. Medical Officer: - In sick bay. Sends Junior Medical Officer and first aid party to scene of collision. Prepares to remove sick. Send stretcher bearers to scene of collision.

k. Boatswain: - Supervises ground tackle. Anchor detail stands by ground tackle, etc. Divisions in whose part of the ship collision occurs provide mooring lines, heaving lines, etc.

l. Chief Police Petty Officer: - Parades prisoners on quarterdeck and keeps them in custody.

m. Boat Crews: - Prepare to hoist out all boats.

300. Officers in charge of details and divisions, as noted above, will see that assignments of personnel are properly made to man collision stations and details, furnish equipment necessary for the emergency.

Section 5. Abandon Ship Bill.

301. The purpose of this bill is to save personnel under the conditions in which the ship will be if it becomes necessary for the crew and troops to abandon her. The watertight integrity of the vessel will have been defeated by collision, grounding, torpedoing, or bombing.

302. And therefor this bill will, as a rule, apply when stations for collision or for some phase of the Battle Bill are manned. Many stations in this bill are identical with those of the Collision and Battle Bills. When at Battle Stations, the gun and machinery details will be kept manned until the last possible moment - always until the second phase of Abandon Ship has been ordered.

303. Action under this bill is divided into two phases: Phase One shall consist of operations necessary to place in the water all liferafts and the maximum number of boats which circumstances admit of lowering, Phase Two shall consist of the actual embarkation into boats and liferafts.

304. There will be no "Provide" except for a few special details. All boats shall at all times be provided with emergency rations, fresh water, and miscellaneous gear kits. It is the responsibility of the First Lieutenant and Boat Division Officer to see that they are so provided.

305. Life jackets are issued as personal gear to each man. If not already worn, they shall be immediately put on and all ties firmly secured at the first call for abandon ship.

PHASE ONE - LOWERING

306. Emergency Signals:

a. "Prepare to abandon ship, Phase One", by general announcing system and Boatswain's Mate.
b. General alarm, after which repeat above word.

307. General Duties:

a. Navigational equipment as designated by the Navigator will be drawn by the quartermasters detailed to boats and carried by them to their boats.
b. Each signalman assigned to a boat will carry binoculars, boat book, rockets, Very pistol and ammunition, and semaphore flags.
c. Hospital Corpsman and Pharmacist's Mates will deliver a medical chest to each boat before it is hoisted out.
d. Divisions which rig embarkation stations will provide and rig sea ladders, cargo nets trailing lines for lowering equipment into the boats. Lines for lowering stretchers will also be provided at the proper station.
e. One rifle and ammunition will be drawn for each boat, by the gunner's mate assigned to the boat, from the after clipping room and placed in the boat before it is hoisted out.

308. Special Stations and Duties - to be taken only when freed from Battle Stations.

a. The Executive Officer is in general charge.
b. The First Lieutenant is in immediate charge of lowering boats starboard and forward.
c. The Gunnery Officer is in immediated charge of lowering boats port and aft.
d. The Navigator relieves the deck and provides charts, navigational equipment, and information to the boat officers as to the present position, course and distance to the nearest land.
e. The Engineering Officer takes station in the engine room and keeps power on the winches and anchor engine, if possible.
f. The Communication Officer arranges to save or destroy secret and confidential publications and records.
g. The Medical Officer supplies a medical chest for each boat and supervises the movement of sick to the proper debarkation station. If possible, stretcher cases should be moved directly into boats at the rail.
h. The Debarkation Officers are responsible for discipline at davit stations; proper loading of the boats and for casting loose lashings of debarkation nets.
i. The Boat Officers are responsible for the stowage of their boats and for the conduct of their boats to the designated rendezvous.
j. The Chief Master-at-Arms, releases prisoners.
k. The Mail Clerk saves funds and postal records.

309. The First Lieutenant and Gunnery Officer will detail officers to each landing net in insure orderly debarkation and to prevent overcrowding of boats and rafts.

310. Detailed assignment of men.

Station	No	Rate	Div	Remarks
1. Boats.				
(a) Coxswains	16	Cox	Boat	Regular Crew
(b) Engineers	16	MoMM's	"	"
(c) Bowhooks	16	S	"	"
(d) Riflemen	8	GM-S	1st	Forward & Starboard
	8	GM-S	2nd	Port & Aft.
(e) Navigation	16	QM-SM	C&N	Navigational Gear
(f) Medical	16	PhM-HA	"H"	First Aid Packages
2. Sick Bay	4	PhM	"H"	Stretcher Cases
	12	StM	"S"	Stretcher Bearers
3. Aft. Clipping Rm.	1	CGM	2nd	Weapons Issue
4. Stretcher Davits	6	S	1st	Lower Stretchers
5. Winches (#2 Hold)	6	BM-S	1st	Lower Boats
(#5 Hold)	6	BM-S	2nd	"
6. Davit Stations	4	RM	C&N	Portable Radios'
7. Life Rafts (Starboard)	8	S	1st	Launch rafts and handle Davit lines.
(Port & Fantail)	14	S	2nd	"

311. All officers and men without specific assignment fall in at Division Parade, keeping well inboard.

312. Reports:

When Ready to Abandon Ship - First Lieutenant and Gunnery Officer so report to Executive Officer.

PHASE TWO - EMBARKATION

313. Phase Two will be ordered when, in the opinion of the Commanding Officer, it is dangerous to wait longer or when all boats and rafts are launched - whichever comes first.

314. Two Boat Division Officer (one port, one starboard) will be embarked in the first boats launched. They will detail four boats to report to davits for stretcher cases. Other coxswains will keep rafts against landing nets until loaded, then tie them together and tow them clear of ship's sides.

315. Personnel will embark, via landing nets, in life rafts and boats under supervision of the First Lieutenant forward and Gunnery Officer aft.

316. Special Instructions When Troops are embarked.

a. Embarked Troops shall be thoroughly instructed and exercised in the procedure to be employed should it be necessary to Abandon Ship, as soon as is practicable after they arrive on board.
b. At Phase One, Troops (passengers) will stay where they happen to be throughout ship, keep clear of launching and maintain silence.
c. Troops shall be made available to assist in launching Life Rafts, if necessary.
d. Assembling areas for Troop Units and the routes to be used to reach landing nets, shall be prescribed.
e. At Phase Two, Troops shall move on the double to assembly areas at the landing nets under the supervision of embarkation officers, where they shall form ranks facing outboard and maintain silence. Embarking Officers shall be responsible for the equal distribution of men at available nets, filling the assembly areas forward and aft first.
f. The order of embarkation will be:
   (1) Stretcher cases and ambulatory cases (boats).
   (2) Troops.
   (3) Crew.

311. All officers and men without specific assignment fall in at Division Parade, keeping well inboard.

312. Reports:

When Ready to Disembark Ship - First Lieutenant and Quartermaster Officer be report to Executive Officer.

PHASE TWO - DISEMBARKATION

313. Phase Two will be ordered when, in the opinion of the Commanding Officer, it is dangerous to wait longer or when all boats and rafts are launched - whichever comes first.

314. The Boat Division Officer (one port, one starboard) will be embarked in the first boats launched. They will detail four boats to report to Davits for otherwise cases. Other coxswains will keep rafts against landing nets until alongside, then tie them together and low them clear of ship's sides.

315. Personnel will debark, via landing nets, in life rafts and boats under supervision of the First Lieutenant forward and Quartermaster Officer aft.

316. Special Instructions when Troops are debarked:

a. Debarked Troops shall be thoroughly instructed and exercised in the procedure to be employed should it be necessary to disembark Ship, as soon as is practicable after they arrive on board.

b. At Phase One, Troops (passengers) will stay where they happen to be throughout ship, keep clear of lifebelts and maintain silence.

c. Troops shall be made available to assist in launching life Rafts, if necessary.

d. Assembling areas for Troop Units and the routes to be used to reach landing rafts, shall be prescribed.

e. At Phase Two, Troops shall move on the double to assembly areas at the landing rafts under the supervision of embarkation officers, where they shall form rank facing outboard and attention alterne. Embarking Officers shall be responsible for the equal distribution of men at available rafts, filling the assembly areas forward and aft first.

f. The order of embarkation will be:

(1) Stretcher cases and ambulatory cases (boats).
(2) Troops.
(3) Crew.

Section 6. Man Overboard Bill.

317. General.

Maneuvers and signals for Man Overboard for ships company are contained in General Tactical Instructions.

When steaming singly in waters where no enemy vessels are likely to be encountered, outboard boats in #1 and #2 davits will be kept ready for instant use as lifeboats. The following special equipment shall be provided for each boat :

a. Two (2) ring life preservers with line attached (kept in boats)
b. Signal Flags and Blinker Tube (provided by SM).
c. First Aid Kits (provided by HA).

318. Lifeboat crews shall be the regular gun watch on gun #24 from the Boat Division, the J.O.O.D. or first officer available, a signalman, and a hospital corpsman. Other men shall be specifically detailed by the boatswain's mate of the watch to man the davits and sea painters. Division Officers concerned will provide for this in the Divisional Watch Quarters, and Station Bill.

319. In port and at anchor, boats in the water shall be used, the Officer of the Deck calling away the crews of any boats not manned on the double. Any boats already manned shall cast off and proceed immediately to the rescue without further orders. If no boats are in the water, at least one boat shall be kept ready for instant lowering.

a. Wartime Procedure While in Formation - Ship Losing man overboard.

1. Drop life buoys (unlighted).
2. Stop engines momentarily (if safe to do so).
3. Make prescribed signals.
4. Maintain course and speed.

b. Prescribed Signals:

1. Break the "Five" flag at foretruck and half mast it immediately, but not below level of stack. (daylight only).
2. Toot whistle, in groups of five (5) toots, each for ten (10) seconds.
3. Inform escorts and ships astern by TBS radio.

*Note: Do not use whistle at night or in fog.

320. ANYONE seeing a man fall overboard (or already in the water), shall immediately call out, "man overboard, starboard or port side" and thereafter endeavor to keep the man in sight and the Officer of the Deck informed as to his location. Other men hearing the call will repeat it until the alarm is sounded by the O.O.D. If the call is not heard and passed along by other men, he shall inform the O.O.D. by the quickest means possible.

321. When operating in waters where enemy craft, especially submarines may be encountered, the ship will not stop or lower boats for the rescue, whether man is lost overboard from the ship or another ship in company unless specifically ordered to do so. If an escort is present, the nearest escort vessel will maneuver to rescue the man overboard.

322. PROCEDURE TO BE FOLLOWED BY O.O.D.

(a) Sound General Alarm.
(b) Boatswain's Mate announces over general announcing system "Man Overboard, port (or starboard) side".
(c) Make prescribed signals in accordance with paragraph 319, part (b).
*Note: No visual signals are made if ship is at anchor or moored.

(d) If use of boats is prescribed, stop engines, and maneuver to clear man.
(e) Receive reports of "Ready" from lifeboat and order lowering of boat when sufficient way is off ship.
(f) Notify in following order - Captain, Engineer Officer on watch in engine room, and Executive Officer.

323. DUTIES PERFORMED BY OTHER PERSONNEL.

Life buoys on side where man falls overboard shall be dropped as near as possible to man. Lookouts keep man in sight.

324. All men not otherwise engaged fall in at their division parades. Each division will make a complete muster as quickly as possible accounting for all hands. All divisions make their reports to the Executive Officer.

325. Organized troops on board will muster at their compartments, reports being made to their Commanding Officer, who will in turn make a report to the Executive Officer of the ship. Troop casuals will be mustered and reported on by the Transport Quartermaster.

Section 7. Ship Salvage and Rescue Bill.

326. The purpose of this bill is to provide an organized detail of trained personnel, provided with the best possible assortment of material, to act in one of four situations.

(1) To remain aboard this ship, after damage, keep her afloat, repair damage and bring her in when unneeded personnel are told to abandon.
(2) To return aboard this ship, after abandonment, if altered conditions make such a return possible.
(3) To man and salvage some other ship which has been abandoned by its personnel.
(4) To aid the personnel of another ship, in distress, to control fire or damage to their ship, and to rescue such personnel, if necessary.

327. In the event of sub-paragraphs (1) or (2) above, the entire party will be involved. If the casualty is to another ship, personnel indicated by the asterisk will not participate but additional officers will be assigned depending upon the size of the task. All will muster at drills.

328. Assembly areas refer to this ship. If the casualty is to another ship, details will be conducted to debarkation stations by the officer in charge upon orders from the bridge. The officer or Petty Officer in charge of each detail will muster his party, check its equipment and as soon as the muster and check is complete, will so report to the bridge.

(a) Officers and enlisted men must be selected on a basis of special knowledge. In short, the best men on the ship should be chosen.for this duty.
(b) The Boat Division crews will man all boats available ready for lowering on command, or to stand by as necessary.
(c) Officers detailed into duties in this bill will provide themselves with pistols and two spare clips of ammunition.

329. Emergency Signals:

a. General Alarm.
b. Word is passed "Away Salvage and Rescue Party" over general announcing system, and by Boatswain's Mates.
c. Member of various details man their stations on the double.

330. Command Section. Muster in Departments

* Commanding Officer.
* Executive Officer.
* Engineering Officer.
Navigating Officer -- In charge when party is sent to another ship.
First Lieutenant
Boatswain
Yeoman - recorder.

331. Ship Control Section — Muster - Bridge

No. men	Rank or Rate	Division
	Navigating Officer	
1	CQM	C&N
2	QM	C&N
2	Seamen	1st
5		

PROVIDE: Binoculars, watch, charts, Navigational instruments.

332. Communication Section — Muster - Signal Bridge

1	CSM	C&N Div.
2	SM	C&N Div.
1	RM1c	C&N Div.
4		

PROVIDE: Signal flags, blinker tubes with spare bulbs and batteries, TBY radio.

333. Towing Section — Muster - Forecastle

First Division Officer.	
Carpenter	
1 CBM	1st Div.
3 BM or Cox.	1st Div.
8 Seamen	1st Div.
12	

PROVIDE: 5 heaving lines.
1 line throwing gun.
1 coil, manila, 3".
2 grapnels with lines.
1 unshackling kit.
forward chain hooks.

334. Auxiliary Section. — Muster - Central Control.

1	EM (qualified gyro)	E Div.
1	EM (Interior Communications)	E Div.
2	MM (Deck Mach.)	A Div.
4		

PROVIDE: 1 Electrician's Tool kit.
5 sets sound power phones.
1 portable electric light.
4 battle lanterns.
1000 ft. telephone cable.
Oil, grease and rags.

335. Main Engine Section. Muster - After Engine Room.

No. men	Rank or Rate	Division
	Ass't Engineering Off.	
	"M" Div. Officer.	
	"A" Div. Officer.	
1	CMM	M Div.
2	MM	M Div.
1	WT (Oil King)	M Div.
8	Firemen	M Div.
1	Metalsmith.	M Div.
1	CEM	E Div.
14		

PROVIDE: 1 rescue breathing apparatus.
3 cannisters.
1 asbestos suit.
4 pairs asbestos gloves.
1 emergency acetylene cutting outfit.
1 hand fuel pump.
4 safety belts with steel lines attached.
1 half-ton chain fall.
6 battle lanterns with spare bulbs.
2 wire straps.
2 small block and tackle
1 crow bar
1 axe.

Also: Tools, nuts, bolts, packing, blank flanges, clamps, plugs, soft patch material, sheet lead, rags, oil, grease, marline, etc.

336. Damage Control Section Muster - Dk. 01, Fr 50, Port side

	"R" Div. Off.(with Damage Control Bill)	
	"E" Div. Officer.	
1	CSF	R Div.
2	SF (cutters, Welders)	R Div.
1	SF striker	R Div.
2	CM (shoring)	R Div.
3	CM or strikers	R Div.
2	GM	2nd Div.
2	MM	M Div.
2	EM	E Div.
15		

336 (con't)

PROVIDE: 1 rescue breathing set.
4 pairs asbestos gloves.
1 emergency acetylene cutting outfit.
1 tank acetylene.
1 tank oxygen.
1 welder and cutter torch with tips, hoses, valves, etc
3 submersible pumps.
1 quarter ton chain fall.
2 safety belts with lines attached.
2 electric portable lights with spare bulbs.
2 pairs of rubber gloves.
6 battle lanterns with spare batteries.
4 flashlights.

Also: Supply of shoring and wedges, carpenter tools, marline and small stuff, wooden plugs, sheet lead, crow bars, axes and other salvage tools, portable electric cables, etc.

337. Fire Party Section — Muster - Quarterdeck

	Second Division Officer	
1	CM	R Div.
1	SF	R Div.
2	BM	2nd Div.
12	Seamen	2nd Div.
1	MM	M Div.
2	Firemen	M Div.
1	EM	E Div.
20		

PROVIDE: 2 rescue breathing apparatus.
1 asbestos suit.
6 pairs asbestos gloves.
10 suits foul weather clothing.
2 handy billies with suction line and strainer.
3 safety belts with steel lines attached.
12 cans aer~~o-foam~~.
2 NPU foam nozzles with pick-up tubes.
10 CO_2 extinguishers (15 lb).
6 lengths, fire hose $2\frac{1}{2}$".
4 lengths, fire hose $1\frac{1}{2}$".
3 "Y" gates.
2 reducer connections.
2 10 ft fog applicators.
2 4 ft fog applicators.
4 all purpose nozzles.
6 spanner wrenches ($2\frac{1}{2}$" and $1\frac{1}{2}$").
1 5 gal. can of gasoline.
1 can of diesel oil.
4 battle lanterns.
2 pair rubber gloves.

Also: Machinist's tools and electrician tools.

Note: All officers and men in this section must be qualified in the use of Rescue Breathing Apparatus.

338. Service Section — Muster - Mess Hall

1	SC1c	S Div.
1	SC2c	S Div.
1	SK	S Div.
3	Mess Cooks	Master at Arms.

PROVIDE: 300 Emergency Rations, 500 gallons of water, 50 lbs coffee, 50 lbs. milk, 50 lbs. sugar.

339. Medical Section — Muster - Sick Bay

	Ass't Medical Officer	
2	PhM	H Div.

PROVIDE: 2 stokes litters
4 blankets.
4 litter slings.
6 first aid packages.
6 canteens.
4 flashlights.

Section 8. Steering Bill.

340. Steering Stations.

There are 3 steering stations in this ship:

a. Bridge.
b. Steering engine room "Steering Aft",(Port and Starboard. trick wheels).
c. Secondary Control - "Bat Two", upper deck (Fr. 101).

341. Methods of Steering.

A. There are three methods by which the ship can be steered by the rudder.

1. By hand, telemotor, using hydraulic drive to electro-hydraulic system.
2. By hand, column wheel, at Secondary Control, using mechanical drive to electro-hydraulic system.
3. By port and starboard trick-wheels in steering engine room using mechanical linkage to electro-hydraulic system.

342. Procedure for Emergency Shifting of Steering.

a. Navigating Bridge.

1. Put "Rudder amidships" if possible.
2. Ring "Steering Alarm Siren", in steering engine room. (alarm switch is located on port side of rudder order telegraph).
3. Set rudder order telegraph to proper angle.
4. Make following emergency signals by ringing engine room phone call bell. (Button located on forward side of rudder order telegraph)

2 rings - Shift control to Secondary Control - "Bat Two".
3 rings - Take Steering Control immediately and follow rudder order telegraph.
4 rings - Return Steering Control to Pilot House.

b. Steering Engine Room

1. Cut out control from bridge and connect to trick-wheel in Steering Engine Room, or shift to Secondary Control according to signal.
2. Man phones immediately and report to bridge when Steering Control has been shifted or taken.
3. Steer ship by rudder order telegraph, or as directed over JV phone.
4. If main ship power fails, notify engine room and shift to other steering engine circuit.

342.(con't)

c. Secondary Control

1. If directed to take control, reports by JV phone when steering control has been taken and steer ship as directed.
2. When shifting to steering engine room, direct shift and gives course and instructions for steering by JV phone.

d. NOTE: Emergency shifting of steering will normally be made:
1. Because of an actual casualty to steering through damages in cruising or action.
2. As a drill.

e. Routine Shifting of Steering.

1. When making routine shifting of steering, the "Steering Alarm" will not be used, but instead, one ring is given on the phone call bell and the word passed over the JV phones to shift steering to station desired. Remainder of procedure will be the same as for emergency shifting of steering.
2. After a steering casualty and when in all respects ready to shift control to Navigation Bridge:
   (a) Notify Navigation Bridge, ready to shift control to Navigation Bridge.
   (b) Keep ship steady on course.
   (c) When directed by Navigation Bridge to "Shift Forward" steering engine room cut out trick-wheel control and notify Navigation Bridge to "Take Over".

343. Steering Casualties.

a. Telemotor system inoperative,
   Action: Shift to trick wheels in Steering Engine Room.
b. Failure of steering motor,
   Action: Shift to other motor.
c. Failure of electric rudder indicator,
   Action: Use mechanical indicator.

344. Steering Equipment.

A. Bridge:

1. Magnetic comapss.
2. Gyro steering repeater.
3. Telemotor steering control.
4. Electrical rudder position indicator.
5. Steering order telep
6. Mechanical rudder indicator.

344.(con't)

B. Secondary Control

1. Magnetic compass.
2. Column steering control.

C. Steering Engine Room.

1. Gyro steering repeater.
2. Port trick-wheel.
3. Starboard trick-wheel.
4. Mechanical rudder position indicator.
5. Steering order telegraph.

Section 9. Gale At Anchor Bill

345. The Officer of the Deck is responsible to the Commanding Officer of the ship for the safety of the ship both at sea and in port. It is the duty of the Commanding Officer to indoctrinate the Officers assigned Officer of the Deck duties in the following details:

a. The Officer of the Deck will be required to have full knowledge of weather conditions of the area in which the ship is anchore of the depth of water; the rise and fall of tide; the set and drift of the current.

b. The Officer of the Deck must be familiar with the chart of the anchorage area, of landmarks in the area, and must frequently check the position of the ship by bearings.

c. The Officer of the Deck must have a thorough knowledge of the anchor gear; of how to heave around or to veer chain; how to let go the second anchor.

d. He must be indoctrinated in the responsibilities of his position he must be alert; and he must keep the Commanding Officer informed of any changes or conditions which might affect the safety of the ship.

e. When at anchor, the Officer of the Deck must insure, by frequent inspections of the personnel on watch, that they are alert and that they are familiar with the duties assigned.

f. In case the barometer begins to rise or fall or the wind begins to increase in force, the Officer of the Deck will:
   1. Notify the Captain immediately;
   2. Hoist in all landing boats and rig in boat booms;
   3. Hoist in gangways;
   4. Have anchor watch man their stations;
   5. Remove stoppers and preventors from anchor chain;
   6. Prepare to veer chain;
   7. Notify the Engine Room to stand by to get underway;
   8. Notify the Captain of action taken.

346. If the wind continues to increase in force the Officer of the Deck should veer chain and direct the Engine Room to prepare to get underway. If conditions continue to become adverse, all sea details should be directed to man their stations. The Officer of the Deck should continue to check frequently, by bearings, the position of the ship and be alert to adverse developments. Under heavy winds the engines must be used to relieve the strain on the anchor cable. This can be done by going ahead slowly on the port or starboard engine to keep the ship headed into the wind.

CHAPTER IV

DAMAGE AND ENGINEERING CASUALTY CONTROL

Section 1. Damage Control

347. The First Lieutenant is the Damage Control Officer. He shall assist the Commanding Officer in co-ordinating all departments in the ship's organization for damage control, assembling correct information concerning the placing of the ship in material condition for battle and supervising exercises and training in damage control and gas defense.

348. In battle condition the regular station of the Damage Control Officer shall be at the Central Repair Station. He is in general charge of the damage control organization in the event of serious fire, damage or other casualty, he shall proceed to the scene and take charge, taking such action as he deems necessary.

349. The Damage Control Repair parties in the ship are organized as follows:

(1) Forward Repair Party.
(2) Central Repair Party.
(3) After Repair Party.
(4) Engineer Repair Party.

There are three damage control lockers indicated as follows:

(1) Main deck, port side frame 35.
(2) Upper deck, starboard side frame 55.
(3) Second deck, starboard side frame 124.

350. The Central Repair Station located in the First Lieutenants' Office is the headquarters of the Damage Control Officer, assistants, and necessary talkers. It is equipped with plans and casualty boards for recording existing conditions, damage sustained, flooding, fire and other casualties.

351. Stations and space assignments of repair are as follows:

(a) Forward Repair Party - Main deck, between frames 33 and 40. Normal operating limits, bow to frame 53.

(b) Central Repair Party - Upper deck, between frames 50 and 60. Normal operating area midships (except Engine-room spaces) between frames 53 to 123.

(c) After Repair Party - Second deck, between frames 123 and 130. Normal operating area from frame 123 aft.

(d) Engineer Repair Party - Assigned stations in the engineering spaces. Normal operating area in the engineering spaces throughout.

Damage Control Organization (cont'd)

352. Repair Parties I, II, and III will be:

(a) Utilized to maintain the maximum watertight integrity of the ship.

(b) Capable of repairing damage to facilities which are designed to maintain watertight integrity, by shoring, by plugging and caulking of bulkheads and decks, by resetting valves, and by blank flanging or plugging lines running between watertight subdivisions of the ship.

(c) Prepared to sound, drain, pump, or shift liquids in tanks, voids or other spaces, and be thoroughly familiar with the location of all equipment and methods of using same in accomplishing the foregoing work.

(d) Capable of making necessary repairs to primary and auxiliary methods of steering; prepared to clear away wreckage which interferes with the operation of the ship, by fouling the rudder, propellers, decks or sides; and ready to extinguish fires by the most effective method available.

(e) Able to maintain and make emergency repairs to battle service systems, such as ammunition supply, ventilation supply, communications systems, and electrical systems.

(f) Capable of repairing above water damage which in the event of further damage might cause flooding at a later time.

353. The Engineer Repair Party must be capable of assisting in repairing or isolating damage to main propelling machinery, boilers, and auxiliaries.

Section 2. General Information

354. Damage control consists of the methods necessary to preserve watertight integrity, stability, and maneuverability; to control list and trim; to effect rapid changes in repair of material; to provide adequate protection from fire and chemical agents; and to facilitate care of wounded personnel. The objective of damage control in an auxiliary vessel is maintenance of the vessel in such a condition that it can perform its mission.

355. (a) Material condition "Baker" is the first of two progressive steps in the closure of the ship. It is the condition required at all times at sea during the war (readiness for action condition II or III). It is also to be maintained in port where danger from mines, bombs or torpedoes exists.

(b) Material condition "Able" is the final of two progressive steps in the closure of the ship. It is the attainment of battle condition for damage control and it will automatically set whenever the ship goes to General Quarters. (readiness for action I or IA).

356. Doors, ports, covers, valves, etc., that are closed in different material conditions are classified by labeling the fittings with letters "X", "Y", "Z", or "W".

(a) The Classification "X" is assigned to all doors, hatches, fittings, and valves that should be CLOSED AT ALL TIMES except during periods which necessitate that they be open for inspection or use.

(b) The Classification "Y" is assigned to all doors, hatches, fittings, and valves that are to be CLOSED IN CONDITION "BAKER". The closure of these items provides the degree of damage control specified for Material Condition "BAKER" and permits the setting of condition "ABLE" expeditiously.

(c) The Classification "Z" is assigned to doors, hatches, fittings and valves that are normally required to be open for the operation of the ship, for access to battle stations, and for habitability; but which must be CLOSED IN ACTION, or during emergencies - CONDITION ABLE.

(d) The Classification "W" is assigned to doors, hatches, fittings and valves which must be kept OPEN DURING ACTION in order to fight the ship. "W" Classifications must be kept to a minimum. Watertight hatches will not be given a "W" Classification. "W" fittings are to be closed only under special circumstances when directed by proper authority.

357. The Classification assigned various fittings is indicated in the Damage Control Bills for the respective systems, which in addition show location of fittings, and responsibility for closure assigned.

Section 3. Material Conditions

358. When Material Condition "Baker" is set, the status of the various fittings and systems will be in accordance with the following:

(a) All watertight doors and hatches are closed except those absolutely necessary for operations and access to battle stations.

(b) All air ports and all battle ports which are not essential for health and living conditions shall be closed.

(c) Fuel oil, and water ballast is so distributed as to reduce to a minimum the effects of underwater damage, and the valves of both fuel oil and water ballast systems are set to insure the maximum watertight integrity.

(d) The valves of the drainage system are set so as not to endanger watertight integrity.

(e) The valves of the firemain, flushing, and magazine sprinkling and ballasting system are set so as not to endanger watertight integrity.

359. Fittings and systems closed or secured under condition "Baker" are all those marked "X" and "Y". Those marked "Z" and "W" are open.

360. (a) Condition I - In action, readiness condition I or IA, the maximum practicable watertight integrity of the ship (Condition "Able") is essential. Accessibility and living conditions are secondary to the requirements of watertight, fumetight integrity. Condition "Able" will be set immediately and without further orders when manning general quarters stations.

(b) Condition IA - Condition Material Readiness "Able" modified to permit maximum speed in debarkation of troops and maximum discharge rate of cargo.

Section 3. Material Conditions

358. When Material Condition "Baker" is set, the status of the various fittings and systems will be in accordance with the following:

(a) All watertight doors and hatches are closed except those absolutely necessary for operations and access to battle stations.

(b) All air ports and all battle ports which are not essential for health and living conditions shall be closed.

(c) Fuel oil, and water ballast is so distributed as to reduce to a minimum the effects of underwater damage, and the valves of both fuel oil and water ballast systems are set to insure the maximum watertight integrity.

(d) The valves of the drainage system are set so as not to endanger watertight integrity.

(e) The valves of the firemain, flushing, and magazine sprinkling and ballasting system are set so as not to endanger watertight integrity.

359. Fittings and systems closed or secured under condition "Baker" are all those marked "X" and "Y". Those marked "Z" and "W" are open.

360. (a) Condition I - In action, readiness condition I or IA, the maximum practicable watertight integrity of the ship (Condition "Able") is essential. Accessibility and living conditions are secondary to the requirements of watertight, fumetight integrity. Condition "Able" will be set immediately and without further orders when manning general quarters stations.

(b) Condition IA - Condition Material Readiness "Able" modified to permit maximum speed in debarkation of troops and maximum discharge rate of cargo.

Material Conditions (cont'd)

361. When Material Condition "Able" is set, additional closures will be made as indicated below.

(a) All watertight doors on or below the Main Deck and all hatches through or below the Main Deck are closed except those necessary for the passage of repair parties. These will be open only during passage of repair parties.

(b) All Ventilating systems, except those to machinery spaces which require large amounts of air are shut down and ducts closed.

(c) The flushing systems are shut offf at the valves where they joint the firemain.

362. Fittings and systems closed or secured under condition "Able" are all those marked "X", "Y" and "Z"; those marked "W" are open.

Section 4. Door and Hatch Bill

363. To facilitate the locating of compartments and fittings the ships is divided into three principal divisions, A, B, and C, as follows:

A. All spaces between the stem of the ship and the forward transverse bulkhead of the machinery space and superstructure Frame 69.

B. All spaces between the forward transverse bulkhead of the machinery space and superstructure to the after transverse bulkhead of the machinery spaces Frame 109 and the after bulkhead of the superstructure Frame 96.

C. All spaces aft of the after transverse bulkhead of the machinery spaces Frame 109 and the after bulkhead of the superstructure Frame 96.

364. The frames are numbered from forward to aft.

365. The compartments in various decks are numbered with initial numbers to indicate the deck, as follows:

Signal Bridge	04
Navigating Deck	03
Superstructure Deck	02
Upper Deck	01
Main Deck	1
Second Deck	2
First Platform Deck	3
Inner Bottom	9

366. The numbering of compartments is prefixed with the letters indicating the principal divisions of the ship in which it is placed, as A-1, B-3, etc. To further define the contents or main use of a compartment, the compartment numbers are followed by a designating letter as follows:

A. Storerooms.
C. Ship Control & Fire Control Spaces.
E. Machinery Compartments.
F. Fuel Oil Tanks.
L. Living Quarters
Lub. Lubricating oil compartments.
M. Communication Spaces.
T. Trunks and Passageways having Numbers.
V. Void Compartments or tanks.
W. Water Compartments or Tanks.
Gas Gasoline Stowage Spaces.

Thus a double bottom compartment used for feed water would be designated C-918-W.

Door and Hatch Bill (cont'd)

367. Compartments on the starboard side are numbered with odd numbers, starting forward, and the port side compartments are even numbers, starting forward.

368. The number of each door, hatch and manhole consists of three parts separated by hyphens. The first part corresponds to the number of the deck on, or in which, the opening is located. The second part corresponds to the Frame No. just forward of the hinge of the cover; and the last part indicates the number of the opening, if there is more than one at the same frame on that deck. Odd numbers in this last part are used for starboard openings, even for port. For example, Door 02-56-2 is on the superstructure deck, frame 56, port side.

369. The following is a list of watertight doors, hatches & manholes.

WEATHER DECKS

Opening & Location			Compartment Served	Class	Division Responsible
Door	Hatch	Scuttles			
	03-56		Fwd Clipping Room	W	First
	03-56-1		Bridge Void	X	C & N
	03-56-2		"	X	"
03-61-1			Bridge	W	"
03-61-2			"	W	"
	03-65-2		Bridge Void	X	"
03-70-1			Aerographer	Z	"
03-70-2			Passageway	Z	"
03-73-1			Fan Room	Z	"
03-83-2			Ship's Office	Z	"
02-62-1			Officer's Passage	Z	Boat
02-62-2			"	Z	"
02-89-1			"	Z	"
02-89-2			"	Z	"
02-93-2			Fan Room	Z	"
	01-1		Paint Room	Z	First
	01-9		Chain Locker	X	"
		01-18-1	Fwd 40 mm Magazine	W	"
01-20			Fwd 40 mm Magazine	W	"
	01-22		#1 Hold	X	"
01-36			Resistor House Ladder	Z	"
	01-37		#2 Hold	X	"
01-51-1			Officers' Passage	Z	"
01-51-2			"	Z	"
01-79-1			Troop Officer Wardroom	Z	"
01-78-2			"	Z	"
01-110-1			Officers' Passage	Z	Second
01-110-2			"	Z	"
01-112			Aft.Amm. Hoist	W	"

Watertight doors, hatches & manholes (cont'd)

Opening & Location			Compartment	Class	Division
Door	Hatch	Scuttles	Served		Responsible
1-124-1			Troop Comp't C-101-L	Z	Second
1-124-2			Shaft Alley Escape	Z	"
1-124-3			Ladder to C-202-L	Z	"
1-124-4			Troop Compt C-101-L	Z	"
	1-126		#5 Hold	X	"
1-127-2			Boat Repair Shop	Z	"
	1-149-2	-149-2	After Void	Z	"
	1-154-1		After Troop's Head	Z	"
1-161			Ordnance Locker	X	"
		1-162-2	Diesel Gen. Room	Z	"
		1-164-2	Aft. 40mm Magazine	W	"
	1-166-1		Boat Spares	X	"
	1-166-2		Dry Stores	X	"
			LOWER DECKS		
	1-1		Bosn's Stores	X	First
1-33-1			Crew's Living Compt.	Y	"
1-33-2			"	Z	"
1-34-1			Fan Room	X	"
1-53-1			Crew's Living Compt.	Z	"
1-53-2			"	Z	"
1-76-1			Fan Room	X	"
1-76-2			"	X	"
1-90			Storeroom	X	Second
1-106			Fan Room	X	"
	2-58		#3 Hold	X	First
2-69-2			Sick Bay	Y	"
2-83-1			Fwd Engine Room	Z	"
2-84-1			Troop Compt B-201-L	Y	"
2-84-2			"	Y	"
2-89-2			Machine Shop	Z	"E"
2-92-1			Troop Compt B-207-L	Y	Second
2-92-2			"	Y	"
2-97-1			Aft Engine Room	Z	"
2-109-1			Troop Compt C-201-L	Y	"
		2-109-2	Shaft Alley Escape	Z	"
2-112			Aft Magazine	W	"
	2-114		#4 Hold	X	"
2-123-1			Troop Compt C-202-L	Y	"
2-123-2			"	Y	"
2-143-1			Aft Troop Head	Z	"
2-143-2			Resistor Room	X	"
2-143-4			Laundry	Z	"
2-147-2			After Void	Z	"
3-61			Fwd Magazine	W	First
3-84			Fwd Engine Room	Z	"M"
3-92-2			Aft Engine Room	Z	"
3-149-2			Emerg. Gen. Room	Z	"E"

Section 5. Ventilation Bill

370. Object - To list the ventilation systems blowers and closure devices so that they may be expeditiously closed as practicable, in order to:

(a) Prevent the spread of water from flooded to undamaged compartments via ventilation ducts.
(b) Prevent spread of fire.
(c) Reduce the entry of poison gas not only from possible enemy gas attack but exploding shells as well.

371. Division - The ventilation system is divided into its component parts; i.e., natural and mechanical. The mechanical system is further divided into supply and exhaust categories. The tabulated lists of blowers and closure devices for both natural mechanical supply and exhaust are listed by decks from forward to aft, and from the uppermost decks to the lowest deck. The first part of the number is the deck number, the next the frame number and the third the fitting number if there is more than one fitting in the same frame on the same deck. Odd numbers for starboard and even for port.

372. Classification - Fittings are classified, generally, in a manner suitable to meet the requirements of condition "Baker" and "Able" and specifically as follows:

(a) Class "Y": All ventilation blowers and all vent duct closures not listed below.

(b) Class "Z": All ventilation blowers and systems to manned battle stations, to messing and berthing spaces, to machinery spaces and magazines, and to exhaust ventilation systems from heads.

(c) Class "W": Necessary ventilation to machinery spaces, requiring a large volume of air.

Ventilation Bill (cont'd)

MECHANICAL VENTILATION SYSTEMS

Blower Location	Outlet Location	Supply or Exhaust	Feeder	Compt. Served	Class	Div. Responsible
04-66-1	Same	E	EL-2	Radar Rm.		C & N
04-71(#1 Stack)	"	E	P18-2	Fwd Engine Room		"
04-83-1	"	E	EL-1	Ship's Office		"
04-86-1	"	E	EL-2	Decoding Room		"
03--70-1(Aerographer)	Same	E	P27B-1	Aerographer		C & N
03-74(Fan Room)	#1 Stack	E	P26-1	Fwd Engine Room		"
03-76-1 "	04-76	S	P-26-3	"		"
03-76-2 "	04-76	S	P-26-2	"		"
03-79-1(RadioRm)	04-79-1	E	C6-2	Radio Rm.		"
03-96(#2 Stack)	Same	E	P18-2	Aft Engine Room		"
02-62-1(Capt's Pantry)	03-58-1	E	BL3-3-4	Capt's Pantry	Z	First
02-88-2(Locker)	02-89-2	S	P27B-11	Battery Rm	Z	Boat
02-90-2(Fan Rm)	02-90-2	S	P27B-9	Officers' Rooms	Z	"
02-91-1 "	"2 Stack	E	P26-4	Aft Engine Room		C & N
02-98-1 "	Same	S	P26-5	"		Boat
02-98-2 "	"	S	P26-6	"		"
01-19-1	Same	S	L8-5-14	Fwd 40mm Magazine		First
01-32-1(Stbd Resistor Rm)	Resistor House	E	P27A-1	Stbd Resistor Rm	W	"
01-32-2(Port Resistor Rm)	"	E	P27A-2	Port Resistor Rm	W	"
01-65(Pantry Stores)	#1 Stack	E	P27A-3	Officers Head & Shower		C & N
01-68-2	Same	E	P27A-15	CPOs Quarters		First
01-74-1(Officers Galley)	Same	E	P19-20	Officers Galley		"
01-84(Fan Room)	02-83-1,02-83-2	S	P27B-2	Wardroom & Rooms	Z	Boat
1-11-1(Resistor Room)	01-9-1	E	P27A-4	Windlass Resistor Rm	Z	First
1-22-2(Crews Wash Room)	01-31-2	E	P27A-5	Crews Head & Washroom	Z	"
1-26-2(Stewards Head)	Port Fwd Kingpost	S	P27A-6	Crew Berthing #1 Hold		"
1-33--2(Damage Control Locker)	01-33-2	E	P27A-9	Crew Berthing #2 Hold	Z	"

Mechanical Ventilation Systems (cont'd)

Blower Location	Outlet Location	Supply or Exhaust	Feeder	Compt. Served	Class	Div. Responsible
1-34-1(Fan Rm. A-108E)	Stbd Fwd Kingpost	S	P27A-7	Crew Berthing #2 Hold		First
1-34-3 "	"	S	P27A-8	"		"
1-60-1(Fan Rm. A-109-E)	#1 Stack	E	P27A-10	Sick Bay, Operating Rm, etc.		C & N
1-62-1 "	01-63-1	S	P27A-11	Crews Mess, CPO Quarters	Z	First
1-62-3 "	01-65-1	S	P27A-12	Sick Bay	Z	"
1-62-5 "	01-67-1	S	P27A-13	Troop Officers Rooms	Z	"
1-72-1(Galley)	01-72-1	E	P37	Fwd Eng Room		"
1-75(Fan Room B-101-1E)	01-76-2	S	P27B-4	Troop's Mess Compt. B-201-L, etc.	Z	"
1-78-2(Troop's Mess)	#1 Stack	E	P27B-5	Central Control Compt., B-201-L		C & N
1-83 "	02-84-2	S	P27B-6	Galley, Bakery, Officers' Galley	Z	Boat
1-83-2 "	01-83-2	E	P18-4	Fwd Eng Room		First
1-87-1(Bread Rm)	01-87-1	E	P19-7	Galley, Bread Rm.		Second
1-86-2(Troop's Mess)	01-86-2	S	P27B-12	Evaporator Room		"
1-88-4 "	01-87-2	E	P27B-12	"		"
1-91-2(Fan Rm. B-101-2E)	#2 Stack	E	P27B-10	Central Control		C & N
1-99-1(Compt. C-101-L)	02-102-1	E	P37	Aft Eng Room		Second
1-100(Ship's Store)	01-100-1	E	P27B-7	Troop Compt., B-207-L & Head		"
1-105(Fan Rm. C-101-1E)	01-109-1	S	P27B-8	Compartments C-101-L & B-207-L	Z	"
1-108-1(Compt. C-101-L)	01-109-1	E	P18-1	Aft Eng. Room		"
1-120-2(Fan Rm. C-101-4E	01-120-1	E	P27C-1	Compt C-101-L Troop & Crew Head	Z	"
1-121-2 "	01-120-1	E	P27C-2	Troop Compt. C-201-L	Z	"
1-121-4 "	1-125-2	S	P27C-3	Aft Magazine		"
1-121-6 "	1-125-2	S	P27C-4	Troop Compt. C-201-L		"
1-121-8 "	1-125-2	S	P27C-9	Troop Compt. Barber Shop, etc.		"
1-165-2 "	Same	S	L-3-417	Aft 40mm Magazine		"

Mechanical Ventilation Systems (cont'd)

Blower Location	Outlet Location	Supply or Exhaust	Feeder	Compt. Served	Class	Div. Responsible
2-73-2(Ice Machine Room)	#1 Stack	E	P27A-14	Compt.B-201-L Dental Office etc.		C & N
2-145-1(Resistor Room)	2-146-1(Void)	E	P27C-11	Resistor Room	Z	Second
2-146-1(Ladderway	1-144-1	E	P27C-7	Aft Troop Head, Carpenter Shop etc.	Z	"
2-150-2(Laundry)	1-150-2	E	P27C-10	Laundry	Y	"
2-160-2(Dry Stores)	1-159-2	S	Emerg. Gen Panel	Emerg. Diesel Generator	W	"
3-22-2(#1 Hold)	01-20-2	E	P31-3	Gasoline Stowage	W	First
3-22-2 "	"	E	P31-3	"		"
3-144-1(Fan Room C-303-1E)	1-143-1	S	P27C-8	Carpenter Shop, Laundry etc.	Y	Second

NATURAL VENTILATION SYSTEM

Outlet	Location & Type	Compartment Served	Class	Div. Responsible
04-63-2	Mushroom	TBS Compartment	Y	C & N
04-65	Cowl (S)	Chart Room		"
04-65-1	Gooseneck	Radar Room - Wardroom	Z	"
04-72-1	"	Aerographer	Y	"
04-81-1	"	Radio Room	Z	"
04-88-1	" (S)	Decoding Room		"
04-89-1	Mushroom	Ladder - Deck 02	Y	"
03-58	Panel	Fwd Clipping Room	Z	First
02-82-2	Panel	Troop Wardroom	Z	Boat
02-108-1	Mushroom	Ladder - Deck 01	Y	"
01-3-2	Gooseneck	Paint Locker	Y	First
01-5-1	Cowl (S)	"	Y	"
01-8-1	" (S)	Resistor Room	W	"
01-8-2	" (S)	Void	Y	"
01-12-2	Gooseneck	"	Y	"
01-13-L	"	Awning Room	Y	"
01-13-2	Cowl (S)	"	Y	"
01-20-1	Gooseneck	Gasoline Compartment	W	"
01-53-1	Panel	#2 & #3 Holds	Y	"
01-53-2	"	Crew Berthing	Z	"
01-53-4	"	"	Z	"
01-54-1	"	Crew's Mess	Z	"
01-70-2	"	Ice Machine Room	W	Second
01-78-1	"	Troop Compartment B-201-L	Z	First
01-83-1	" (S)	Fwd Engine Room		"
01-84-2	"	Troop Mess	Z	"
01-86-1	"	Small Stores	Y	Second
01-89-1	"	Bakery		"
01-95-1	"	Troop Compartment B-207-L	Z	"
01-102-2	"	Troop Compartment C-101-L	Z	"
01-109-2	"	After Engine Room		"
01-111	Gooseneck	Aft. Magazine Trunk	Z	"
1-145-2	Panel (S)	Resistor Room	Z	Second
1-163-2	"	Emergency Diesel Generator	W	"
1-167-1	Gooseneck	Boat Stowage	Y	"
1-167-2	"	Dry Stores	Y	"

Section 6. Drainage Bill

373. The purpose of this bill is to list and describe the pumps, lines, drains and valves of the ship's drainage system in order that prompt and intelligent action may be taken when draining or flooding of compartments is necessary.

374. The following pumps located in the forward and after engine rooms may be used on the drainage systems:

PUMP	TYPE & SIZE	CAPACITY	LOCATION
1. Bilge	Vertical Simplex. Steam 10"x10"x18"	330 GPM	Fwd - 69
2. General Service	Vertical Simplex. Steam 10"x10"x18"	330 GPM	Fwd 84-1
3. Bilge & Oily Ballast	Vertical Simplex. Steam 10"x10"x18"	330 GPM	Aft 109-2
4. Clean Ballast	Vertical Complex. Steam 12"x14"x18"	600 GPM	Aft 92-1
5. Submersible Bilge	Centrifugal Electric	320 GPM	Fwd 84
6. Fwd Main Circulating	Centrifugal Electric	6850 GPM	Fwd 80-2
7. Aft Main Circulating	Centrifugal Electric	6850 GPM	Aft 100-1

375. The drainage system is divided into two separate systems - main and secondary:

(a) The main drain is used only in case of a serious leak in the engine rooms when leakage is beyond the capacity of the secondary drain pumps. It's operation consists of pumping water from the bilges, with the Main Circulating Pump in the Engine Room spaces only, through the main condenser and overboard. This is done by opening the bilge suction and closing the main injection valve, located at frames #80 and #100 respectively.

(b) The secondary drain is connected to the Bilge, General Service, Clean Ballast, and Bilge and Oily Ballast Pumps. The bilge suction manifolds, for spaces forward of the Engine Rooms are located on the port and stbd. side of the Forward Engine Room at frame #69. The after bilge manifold is located in the Shaft Alley Passageway at frame #110. The fwd. suction lines extend up the port and starboard side near the skin of the ship. The after lines are amidships.

376. The forward port and starboard manifolds are connected to 5 & 4 drains respectively. Both manifolds have suction lines extending to drain wells in # 1-2-3 Holds and to the forward Magazine. The port manifold has in addition a suction line to the Ice Machine drain well at Frame #67. The after manifold valves control suctions from the drain well in #5 hold at Frame #143 and from the shaftalleys and thwartships passageways.

Section 6. Drainage Bill

373. The purpose of this bill is to list and describe the pumps, lines, drains and valves of the ship's drainage system in order that prompt and intelligent action may be taken when draining or flooding of compartments is necessary.

374. The following pumps located in the forward and after engine rooms may be used on the drainage systems:

PUMP	TYPE & SIZE	CAPACITY	LOCATION
1. Bilge	Vertical Simplex. Steam 10"x10"x18"	330 GPM	Fwd - 69
2. General Service	Vertical Simplex. Steam 10"x10"x18"	330 GPM	Fwd 84-1
3. Bilge & Oily Ballast	Vertical Simplex. Steam 10"x10"x18"	330 GPM	Aft 109-2
4. Clean Ballast	Vertical Complex. Steam 12"x14"x18"	600 GPM	Aft 92-1
5. Submersible Bilge	Centrifugal Electric	320 GPM	Fwd 84
6. Fwd Main Circulating	Centrifugal Electric	6850 GPM	Fwd 80-2
7. Aft Main Circulating	Centrifugal Electric	6850 GPM	Aft 100-1

375. The drainage system is divided into two separate systems - main and secondary:

(a) The main drain is used only in case of a serious leak in the engine rooms when leakage is beyond the capacity of the secondary drain pumps. It's operation consists of pumping water from the bilges, with the Main Circulating Pump in the Engine Room spaces only, through the main condenser and overboard. This is done by opening the bilge suction and closing the main injection valve, located at frames #80 and #100 respectively.

(b) The secondary drain is connected to the Bilge, General Service, Clean Ballast, and Bilge and Oily Ballast Pumps. The bilge suction manifolds, for spaces forward of the Engine Rooms are located on the port and stbd. side of the Forward Engine Room at frame #69. The after bilge manifold is located in the Shaft Alley Passageway at frame #110. The fwd. suction lines extend up the port and starboard side near the skin of the ship. The after lines are amidships.

376. The forward port and starboard manifolds are connected to 5 & 4 drains respectively. Both manifolds have suction lines extending to drain wells in # 1-2-3 Holds and to the forward Magazine. The port manifold has in addition a suction line to the Ice Machine drain well at Frame #67. The after manifold valves control suctions from the drain well in #5 hold at Frame #143 and from the shaftalleys and thwartships passageways.

383. The following is a list of secondary drain valves outside of the machinery spaces: (All valves classified as "X")

DRAINAGE SYSTEM

DRAIN LOCATION	CONTROL	LOCATION	DIV. RESPONSIBLE
#1 Hold - Stbd	2nd Deck	Fr. 32-1	C & R
#1 Hold - Port	"	Fr. 32-2	"
#2 Hold - Stbd	"	Fr. 52-1	"
#2 Hold - Port	3rd Deck	Fr. 52-1	"
#3 Hold - Stbd	Fwd. Engine Rm.	Fr. 69-1	"M"
#3 Hold - Port	"	Fr. 69-2	"
Fwd. Magazine - Stbd	"	Fr. 69-1	"
Fwd. Magazine - Port	"	Fr. 69-2	"
Refrigerator Space	"	Fr. 69-2	"
Shaft Alley - Stbd	Shaft Alley Passage	Fr.110-1	"A"
Shaft Alley - Port	"	Fr.110-2	"
Shaft Alley Passage - Stbd	"	Fr.110-1	"
Shaft Alley Passage - Port	"	Fr.110-2	"
#5 Hold	"	Fr.110-1	C & R
	BALLAST SYSTEM		
Forward Peak Tank	Upper Deck	Fr. 11-1	C & R
After Peak Tank	Second Deck	Fr.166-1	"

384. The gravity and deck drain system is composed of several separate units, each fully enclosed within a single water tight compartment. Each unit consists of a system of drainage lines leading to overboard discharge scuppers or directly into the bilges.

385. Overboard gravity drain cut-off valves (classified as "Z" valves) are listed below:

VALVE LOCATION	LOCATION OF CONTROL	DIV. RESPONSIBLE.
3-32-2	1-32-2	First
3-32-1	1-32-1	"
3-50-1	Same	"
3-50-2	"	"
3-58-1	1-58-1	"
	ENGINE ROOM SPACES	
83-1	Same	"M"
83-2	"	"
93-1	"	"
93-2	"	"
3-112-1	1-112-1	Second
3-112-2	1-112-2	"
3-158-2	2-158-2	"
3-160-1	Same	"
3-160-2	"	"

386. The eductor drainage system consists of one eductor drain located forward of the bulkhead at frame #12. The drain operates on suction supplied by the passage of a stream of water from the fire main past an open valve leading to the space to be drained.
To Operate: (1) Open the valve to the firemain and allow the stream of water to flow past the closed valve. (2) To secure; reverse the process. In operating the eductor drain the operator should stand by until the system is secured. Dirt in the nozzle of the Eductor will cause it to back up water through the suction and flood the compartment.

Section 7. Fire Main, Flushing & Sprinkling System Bill

387. A double six inch fire main (port & stbd) extends just below the 2nd Deck from Frame #12 to Frame #143. It can be split from Frame #20 to Frame #141 except for a short distance at Fr Frame #54 where the lines merge into one. There is a cross connection with a cut off valve between the port and starboard lines in the sections between all water-tight bulkheads except in the sections formed by bulkheads #84 and #92, (Evaporator Spaces) and #109 and #123 (#4 Hold). On the starboard line, no cut-off valve is available, fore and aft, between water-tight bulkheads #84 and #109. Except for the above limitations, suction between any two bulkheads can be isolated in case of fire-main rupture, without interfering with fire-main pressure at any other point in the system.

388. Fire Main pressure is furnished by three pumps;

(a) 2-Worthington, vertical simplex, 12"x 11" x 18" steam reciprocating, 400 GPM pumps. One is located at Fr. #83-2 in the Forward Engine Room and one at Fr. #92-2 in the After Engine Room.

(b) 1-Worthington Electric Pump 400 GPM located in After Engine Room at Fr. #97-2.

Auxiliary pressure is furnished by two 1000 GPM Buda Pumps driven by six cylinder, 100 HP Buda Diesel Engines. One is located forward of #1 Hold on Deck 3, Frame #12; the other aft on Deck 3, Frame #143 in the Emergency Diesel Generator Room.

Any one pump can maintain pressure in the entire system and all pumps have individual suctions and check and relief valves.

389. Forward of Fr. #17 the starboard main continues into a four inch line, which then splits, to feed the Forward 40mm Magazine Sprinkler System and the flushing lines. The port line goes to a riser of the Forward Auxiliary Diesel Fire Pump. Aft of Fr. #143, the starboard line continues into a four inch line for the flushing system and one fire plug. The port line goes into a riser of the After Auxiliary Diesel Fire Pump, and also splits into a line feeding the After 40mm Magazine Sprinkler System and two fire plugs.

390. Weather deck risers are minus the necessary globe valves for cold weather drainage, but can be drained for valve repair by cutting the riser at the fire main and draining from a fire plug lower on the riser. All pump relief valves are set at 130 pounds. All fire main and cross connection valves are gate valves, operated locally only. Six inch risers from the Engine Rooms connect into the fire main at Fr. #80 (Port) and Fr. #96 (Starboard).

391. Sprinkling system lines come off the fire main at various points throughout the ship, for gasoline stowage, magazines and clipping rooms.

392. During any emergency or action, the fire pump is to be ready for instantaneous, maximum pressure on the fire main. This pump can be kept in an idling condition and, immediately upon order, the fire line discharge valve can be opened, the overboard discharge valve closed and the pump speeded up to gain necessary pressure. The Emergency Diesel Pumps will be started upon order.

393. The following is a list of the valves in the various systems:

FIRE MAIN SYSTEM		
LOCATION OF PLUGS	SIZE OF VALVES	CUT-OUT VALVES (2½" GATE)
	Navigating Deck (03)	
03-57-1	2½"	2-62-1
03-59-2	2½" & 1½"	2-59-2
03-86-1	"	2-79-1
03-86-2	"	2-80-2
	Superstructure Deck (02)	
02-64-1	2½" & 1½"	2-62-1
02-80-1	"	2-79-1
02-80-2	"	2-80-2
02-87-1		01-86-1
	Upper Deck (01)	
01-17-1	2½" & 1½"	1-15-1
01-31-1	"	2-32-1
01-51-1	"	2-51-1
01-51-2	"	2-51-2
01-61-2	2 - 1½"	2-62-2
01-71-2	2 - 1½"	1-71-2
01-82-1	2½" & 1½"	2-79-1
01-82-2	"	2-82-2
01-84-1	2 - 1½"	1-84-1
01-108-2	2 - 1½"	Same as Plug
01-109-1	2½" & 1½"	1-108-1
01-109-2	"	1-104-2
	Main Deck (1)	
1-12-2	2 - 1½"	2-13-2
1-20-2	"	2-21-2
1-32-1	"	Same as plug
1-35-1	"	2-33-1
1-62-2	"	2-62-2
1-82-1	"	1-84-1
1-111-2	"	2-110-2
1-123-1	2½" & 1½"	2-124-1
1-123-2	"	2-124-2
1-147-2	2 - 1½"	2-147-2

393 (cont'd)

	Second Deck (2)	
2-32-1	2 - $1\frac{1}{2}$"	Same as Plug
2-34-2	"	"
2-63-2	"	"
2-72-2	"	"
2-92-1	"	"
2-108-2	"	"
2-110-1	"	"
2-124-1	"	"
2-142-1	"	"
2-145-1	"	"
2-145-2	"	"
	First Platform (3)	
3-34-2	2 - $1\frac{1}{2}$"	Same as Plug
3-58-1	"	"
	Forward Engine Room	
4-82-1	2 - $2\frac{1}{2}$"	
4-84-2	"	
	Evaporator Space	
4-88-2	2 - $1\frac{1}{2}$"	
4-90-1	"	
	After Engine Room Space	
4-94-2	2 - $2\frac{1}{2}$"	
4-94-1	"	

394.

FLUSHING SYSTEM

Compartment Served	Valve at Supply line		Valve at Main	
	Type	Location	Type	Location (2nd Dk.
Crew's Head A-107-1L Crew's Washroom Mess Attendants' Head	2½" Globe	1-15	4" Gate	Fr. - 17
Officer's Heads A-0204-L " A-0205-L " A-0102-L Captain's Head Wardroom Galley	3" Globe	01-60-2	6" Gate	Fr. - 68
C.P.O's Head Troop's Scullery Galley (Garbage Grinder) Galley (Potato Peeler) Sick Bay	None		6" Gate	Fr. - 68
Officer's Head B-0105-L Troop's Head B-207-2L	None		4" Gate	Fr. - 102-2
Troop's Head C-101-2L Crew's Head	4" Gate	1-111-2	4" Gate	Fr. - 111-1
Troop's Head C-207-L	None		3" Gate	Fr. - 144-1

395.

SPRINKLER SYSTEM

Compartment Served	Valve	
	Type	Location
Fwd. 40mm Magazine	2-2½" Globe	01-20 (On Deck)
#1 Hold (Gas Stowage)	2-4" Gate	2-34-1
#2 Hold (Water Curtain)		
#3 Hold	2-3" Gate	1-54-1 (Crew's Mess)
Fwd. 3" Magazine	2-3" Gate	1-54-1 "
Fwd. Clipping Room	2-2½" Gate	02-62
Aft. Clipping Room	2-2½" Gate	01-109-2
Aft. 3" Magazine	2-2½" Gate	1-110-1 (Crew's Berthing)
Aft. 40mm Magazine	2-2½" Globe	1-148-2 (On Deck)

Section 8. Fuel Oil Bill

395. There are four 6" weather deck connections for fueling the ship: Two located on the Main Deck aft, port and starboard, at frame #143, two on the Upper Deck, port and starboard, at frame #33. There are, however, only two risers located in the Machine Shop at frame #84 port and starboard, with a cross connection and a cut out valve in the CO2 Room at frame #84. The filling line runs through the Machine Shop deck into the Evaporator compartment where it branches forward and aft on both port and starboard sides to the various tanks, manifolds and pumps. There are cut-out valves at each filling connection on deck.

396. Fuel Oil is handled for shifting or for fueling other ships by two Fuel Oil Transfer Pumps. In addition, two main and two standby Fuel Oil Service Pumps deliver oil to the burners in the boilers at high pressure. One pump of each type is located in each Engine Room.

397. The pump characteristics and locations are as follows:

PUMP	LOCATION	TYPE
1. Fwd. Fuel Oil Transfer	Fr. 83	Worthington, horizontal duplex, 7½" x 9" x 12" steam, 150 GPM at 45 lbs pressure.
2. Aft. " " "	Fr. 109-2	"
3. Fwd. Main Fuel Oil Service.	Fr. 79	Worthington, Electric, 12 GPM at 400 lbs pressure.
4. Aft. " " "	Fr. 98-2	"
5. Fwd. Standby Fuel Oil Service.	Fr. 78-2	Worthington, Vertical Duplex Steam, 5½" x 3" x 6" - 12 GPM at 400 lbs pressure.
6. Aft. " " "	Fr. 99	"

The Bilge and Oily Ballast Pump and the General Service Pump are used for ballasting tanks after fuel oil has been consumed. These pumps are located and described in the Drainage Bill, Section 6 of this chapter.

Section 6. Fuel Oil Drain

397. There are four 6" weather deck connections for flushing the ship. Two located on the Main Deck at, port and starboard at frame #143, two on the Upper Deck, port and starboard, at frame #73. There are, however, only two risers located in the Machine Shop at frame #84, port and starboard, with a cross connection and a cut out valve in the 002 deck at frame #84. The flushing line runs through the Machine Shop deck into the Evaporator compartment where it branches forward and aft on both port and starboard sides to the various tanks, manifolds and pumps. There are cut-out valves at each flushing connection on deck.

398. Fuel Oil is handled for shifting or for flushing other ships by two Fuel Oil Transfer Pumps. In addition, two main and two stand. Fuel Oil Service Pumps deliver oil to the burners in the boilers at high pressure. One pump of each type is located in each Engine Room.

397. The pump characteristics and locations are as follows:

PUMP	LOCATION	TYPE
1. Fwd. Fuel Oil Transfer	Fr. 83	Worthington, horizontal duplex, 7½" x 6" x 12" steam, 150 GPM at 15 lbs pressure.
2. Aft. " " "	Fr. 130	"
3. Fwd. Main Fuel Oil Service.	Fr. 77	Worthington, Electric, 12 GPM at 400 lbs pressure.
4. Aft. " " "	Fr. 98-2	"
5. Fwd. Standby Fuel Oil Service.	Fr. 78-2	Worthington, Vertical Duplex Steam, 3½" x 2" x 6" - 12 GPM at 400 lbs pressure.
6. Aft. " " "	Fr. 79	"

The Ballast and Oily Ballast Pump and the General Service Pump are used for ballasting tanks after fuel oil has been consumed. These pumps are located and described in the Drainage Bill, Section 6 of this chapter.

398. While cruising, fuel oil for the burners is consumed from the settling tanks, from which service pumps have direct high and low suctions. These tanks shall be sounded daily, to insure that sufficient oil is on hand for daily consumption. Equalizing lines are installed between the settling tanks to maintain proper trim. As fuel oil is used, double bottom tanks shall be filled with ballast (sea water). Wing tanks shall be filled at least to the water line to maintain the best degree of protection against underwater damage.

399. During General Quarters the equalizing lines shall be closed and separate suctions used for supplying oil to the burners. Filling and transfer lines shall be kept open for fast transfer of oil, if necessary.

400. Diesel Oil for Landing Craft is received at two filling stations on the Main Deck, at Frame #123, port and starboard. Boats may be fueled at any of seven stations as follows: Deck 02, Frame #81, port and starboard; Deck 01, Frame #34, amidships; and on Deck 1 at Frames #124 and #144, port and starboard.

401. The following is a list of Fuel and Diesel Oil Tanks with location and capacities.

TANK NO.	FRAME NO's	TONS	GALLONS
A-901-F	12-33	52.3	15,007
A-902-F	33-53	91.5	26,276
A-904-F	53-69	53.4	15,349
A-903-F	53-69	53.4	15,349
B-906-F	69-84	61.1	17,549
B-905-F	69-84	61.1	17,549
B-908-F	84-92	28.6	8,200
B-907-F	84-92	28.6	8,200
B-912-F	92-109	68.6	19,686
B-911-F	92-109	68.6	19,580
B-913-F	109-123	78.4	22.519
C-920-F	123-128	30.1	8,641
C-921-F	128-136	30.5	9,057
C-922-F	136-143	12.7	3,657
A-4-F	53-69	52.9	15,182
A-3-F	53-69	52.9	15,182
B-2-F	69-77	42.5	12,202
B-1-F	69-77	42.5	12,202
B-4-F	77-83	31.4	9,026
B-3-F	77-83	31.4	9,026
B-16-F	93-100	36.9	10,607
B-15-F	93-100	36.9	10,607
B-18-F	100-109	47.6	13,656
B-17-F	100-109	47.6	13,656
C-914-F	109-114	19.5	5,585
C-915-F	109-114	19.5	5,585
C-916-F	114-123	26.9	7,727
C-917-F	114-123	26.9	7,727
C-1-F D.O.	116-123	55.7	17,820
C-918-F	123-143	43.6	12,150
C-919 F	123-143	43.6	12,150

TOTAL:
Fuel Oil - 378,891 gals.
Diesel Oil - 17,820 "

Section 9. Jettisoning Bill

402. The purpose of the jettisoning bill is to provide an organization that will effectively and in the minimum amount of time, jettison or strike down portable and semiportable weights when the ship is in danger of foundering. This is a means of offsetting the loss of stability resulting from underwater damage. It should be resorted to only after all efforts to control stability by pumping or ballasting fuel or water tanks have been exhausted. The First Lieutenant will be responsible for carrying out the jettisoning bill and will have men detailed to dispose of each item listed.

403. All men not actually employed in fighting the ship or immediately required for ship or damage control will augment the parties disposing of material in their part of the ship.

404. When it is decided to "jettison ship", the word will be passed as follows, "Jettison ship". All available telephone circuits will be used to pass the word. In case the telephone communication is out of commission the word will be passed by word of mouth.

405. The principal items to be handled are:

Item	Disposition	Detail
Boat (16)	Launch with Crew	Boat Div.
Ready Ammunition	Overboard	General Crew
20mm Guns (10)	Strike Down	Gun Crews
Furniture	Overboard	General Crew
Supplies	Overboard	General Crew
Wire Cable	Overboard	Repair Parties
Anchor Chain	Let Go	Repair Parties
Towing Hauser	Strike Below	Repair Parties
Loading Machine	Overboard	Repair Parties
Life Rafts	Launch & tow alongside	First & Second Divisions
Fog Generators (2)	Overboard	Repair Parties

* The towing hauser and ground tackle will not be disposed of until specifically directed by the Commanding Officer.

Section 10. Gas Defense Bill

406. Objects
To prevent the introduction of chemical agents within the ship, thus avoiding contamination of personnel and ship's structure and equipment beyond the weather decks and exposed stations.

407. To carry out an effective decontamination procedure as soon as possible in the event of successful gas attack.

408. Ship and Individual Protection - The requirements of condition "Able", as set forth in the Ventilation, Door and Hatch Bills, provide the ship with the maximum possible protection against gas attack. Exceptions to the air-tight integrity of the ship in this condition are blowers and vent covers providing necessary ventilation to machinery spaces. Material Condition "Able" shall be set in accordance with the ship's battle procedure.

409. All personnel shall carry their gas masks to their battle stations and when not at battle stations they will secure their gas masks to bunk frames or to regularly assigned racks.

410. Decontamination

Material - Decontamination of material shall be effected by the "Decontamination Squad" consisting of men assigned by First Lieutenant. They shall proceed to areas affected by visicant gas and clean up. Decontamination equipment will include RH-195, acetylene tetrachloride, tubs, spray pumps, scrubbers, brooms and rags. Gear lockers for this equipment will be designated by First Lieutenant and should be near wash rooms in the vicinity of the repair parties.

(1) Approximately one (1) pound of solid, RH-195 to ten (10) pounds of solvent, acetylene tetrachloride is to be used.
(2) The mixture should be prepared in tubs on the topside. The solid should be placed in the tub first, then the solvent poured in, using a paddle to stir the mixture thoroughly, as a slow deterioration of the mixture takes place, personnel concerned are warned against preparing the mixture too far in advance.

411. Precautions

(1) Personnel engaged in preparing mixture should wear rubber gloves when handling the chemicals.

(2) Ordinary soap and water may be used to wash off the solid, solvent, or mixture, which touch the skin.

412. Procedure

(1) The liquid mixture can be applied to vertical surface by hand sprays, or can be applied to the deck by any appropriate method.

(2) Do not wet down surfaces with water prior to applying RH-195 mixture.

(3) On vertical surfaces, start procedure at the upper limit and work downwards, always starting decontamination at the edges of contaminated areas.

(4) The solution should be throughly and vigorously scrubbed into the surface with brooms, kiyis, or brushes, continuing for five (5) minutes, after which the solution and destroyed mustard may be washed down with a hose.

(5) Canvas - If heavily contaminated the canvas should be burned or thrown overboard.

(6) Bronze wires, riggings, etc. - rags soaked in RH-195 solution may be used to scrub off affected areas.

(7) Manila or hemp lines or signal halyards - These may be decontaminated, but with subsequent loss of strength (about 50% or less).

(8) Hawsers - outer layers of manila hawsers should be cut off and burned, or otherwise destroyed.

413. Personnel

Decontamination stations for personnel shall be established by the First Lieutenant, and normally will be in the laundry and wash rooms. The Medical Department shall have men stationed at each decontamination station.

414. Proced re for Contaminated Personnel:

(1) Go to the windward and remove clothing, except shoes and underwear, before proceeding to decontamination stations. Make sure that the parts of ship passed through do not become contaminated through personal contact.

(2) Remove rest of clothing outside of entrance to decontamination station, placing clothing in receptacles provided.

(3) Swab parts of skin affected by mustard gas with kerosene, carbon tetrachloride, oils, or RH-195 solution. Then take a complete shower, using plenty of hot water and soap.

(4) Put on clean clothes. Clothing left in receptacles and topside will be decontaminated or destroyed at the discretion of the First Lieutenant. Personnel handling contaminated clothing will be dressed in a complete suit of protective clothing, including gloves and gas masks.

Section 11. Engineering Casualty Control Organization

415. The general functions of the Engineering Department for control of damage are:

(a) To operate, maintain and repair the machinery and power facilities necessary to insure the maximum mobility and maneuverability of the ship.

(b) To establish and maintain an uninterupted supply of electrical power to the offensive weapons and particularly to boat davit winches and cargo booms.

(c) To pump out flooded compartments by means of drainage pumps and connected pumping, as directed by the Damage Control Officer.

(d) To maintain the ship in a stable condition by transfer within the ship of fuel oil and fresh water, as directed by the Damage Control Officer.

(e) To supply and post diagrams of systems needed for reference by personnel on the stations to which they apply.

416. The organization of the Engineering Department shall provide for such machinery operating conditions and personnel assignments as will be most effective in localizing damage and continuing the operation of the plant under all conditions.

Section 12. Description of Engineering Plant

417. The ship's main propulsion system consists of two units as noted below.

(a) Turbines - Westinghouse, Cross Compound - one Low Pressure Turbine and one High Pressure Turbine in each Engine Room. The total horsepower of both units is 8,000.
(b) Boilers - Babcock and Wilcox, two-drum Marine Boilers. One in each Engine Room.
(c) Shafts - One geared to each unit by Westinghouse double reduction gears with a normal RPM of 160.
(d) Propellors - Two, bronze, four blade propellors, 12'-4" in diameter, with a pitch of 13.63 ft. Weight 9,822 lbs.

In wartime operations these units are operated independently.

418. Further data on Engineering Equipment:

(a) Evaporators - Two Griscom-Russell, solo shell, two-effect evaporator units. Rated capacity - 24,000 gallons per day.
(b) Ice Machine - Three York Compressors. Freon 12, Balanseal, enclosed, single acting vertical, three cylinders; 600 RPM, belted to 10 HP motors.

419. Main Steam Line
The main steam line is a 6", seamless, cold rolled steel line that has the necessary bends between the boiler and the throttle valve to take care of thermal expansion. The flanged joints are manufactured so as to use cerated gaskets and flexitallic material softer than the steam line flanges, but hard enough to hold $1\frac{1}{2}$ times the working pressure by hydrostatic tests.

420. The line leaves the main steam stops on each boiler and leads directly to the throttle stop valves. The main steam line is cross connected between the two engine rooms with cut out valves in each space. The Boiler feed pumps are furnished with steam by a line in which cut out valves are installed, leading from the main steam line.

421. In warming up the main steam line, the valves to be used should be slightly opened and lightly closed to insure that the valves do not freeze, due to expansion when heated. The main steam line, throttle chest and main turbines should be thoroughly drained of condensate before full boiler pressure is admitted to line. By-pass valves, installed on cut outs, should be used in warming main line to insure slow heating and proper drainage of the line. Before throttles are used, the turbines must be free to move. A positive check of turning gear must be made, before spinning the turbines.

422. To secure the main steam line, close out out valves to section which is to be secured and open drains. Throttle and turbine drains should be left open. The Turning Gear must not be engaged until pressure is zero at the throttle valve.

423. Auxiliary Steam Line
The auxiliary steam line is a seamless, cold rolled line. It leaves the boilers from the auxiliary steam stops and its cross connected between both boilers. From the auxiliary steam line the steam is reduced in pressure as necessary for air ejectors, pumps and smothering systems. It is then further reduced to supply steam leak-off to the auxiliary exhaust line, evaporators and also for heating circuits, galley and pantrys.

424. Auxiliary Exhaust Line
The pressure is maintained in the auxiliary exhaust line by all the pumps and auxiliaries it services, augmented by a regulator from the auxiliary steam line. Pressure increases caused by excessive auxiliary machinery in simultaneous operation automatically closes the regulator. Pressures in excess of the relief valve settings are relieved to the atmosphere, or to auxiliary condensers. When the auxiliary exhaust pressure is insuffiecient to meet the demands of the feed heaters or evaporators, steam is automatically bled from the auxiliary steam line through the regulator. There is also a bleeder on the high pressure turbine and main generator that can be cut in on the auxiliary exhaust line.

425. The condensate pumps take their suction direct from the wells of the main and auxiliary condensers, thence to the air ejector condenser (as a cooling medium) and to the after condenser (or gland seal condenser) to the direct connecting heater. The direct connecting heater is mounted on the engineering spaces grating level to insure positive pressure on the suction side of the feed booster pumps. The main and auxiliary feed pumps take their suction direct from the direct connecting heater or from the distillate tank or bottoms and discharge through the boiler check and stop valves by way of the main and auxiliary feed lines. The emergency feed pump takes its suction from any bottom or distillate tank and discharges it either through the main or auxiliary feed lines to the boiler. The main feed and condensate systems are cross connected between engine rooms.

426. A condensate cross connection is not installed for use when one air ejector (main or auxiliary) is secured. In wartime steaming conditions the auxiliary and main air ejector are both in operation and split plant system used.

427. Fuel Oil Service, Transfer and Overflow System.
The fuel oil service system takes oil from the settlers on high suction in normal operation. Fuel is taken from the inner bottoms on the low settler suction only in emergency. Strainers and bypasses are fitted on the suction side of the pumps. There are two electric driven rotary gear pumps used as service pumps. There is one hand pump on the starting diesel oil suction line. In cold starting the diesel oil system is a direct connection system from the diesel oil storage tank to the boiler, bypassing heaters. On the discharge line of the fuel oil service pump there is a pressure gauge, an air chamber and three heaters which can be used independently or in any combination. There are 3/4" relief valves set at 365 lbs. per square inch, on the pumps. Each heater is fitted with 3/4" relief valves set at 375 lbs. per square inch. The fuel oil temperature is controlled by a thermostat on the outlet side of the heaters which in turn controls the steam supply to the heaters. There is a high pressure duplex strainer, meter and bypass fitting for pressure control, on the fuel oil service line between the heaters and the boilers. There is also a quick closing gate valve and a needle valve at the burners.

428. The fuel oil recirculating system is taken from the fuel oil service line just aft of the burner cut-offs. It is controlled by a valve in front of the Fuel Oil Service Pump. It keeps the fuel oil service pressure regulated by bleeding the oil back to the suction side of the pump. From this line there is also a recirculating line to be used in warming up the fuel oil service system in starting. The fuel oil service system is cross connected between the two engine rooms with a 3/4 inch line. This line also serves the purpose of draining the system, of any contaminated oil into tank #C-920-F.

*The fuel oil transfer system is covered in the Fuel Oil Bill of this chapter.

429. ELECTRIC PLANT
The electric plant consists of two main generators and one emergency generator. The main generators are 500 K.W. Allis-Chalmers steam turbine generators, supplying 240/120 volt D.C. The emergency generator is a 75 K.W. Ideal Mfg Co generator driven by a Murphy Diesel Engine. There are two A.C. motor generators, 15 KVA, which supply A.C. current to Inter-communication circuits, movie projectors and radios.
The two main generator boards each have a tie switch and circuit breaker which enables the generators to be operated in parallel. There is a tie switch and circuit breaker which ties in each generator to the Central Control switchboard. This switchboard controls all lighting and power except the engine room power circuits which are operated from the engine room switchboards.

430. The emergency generator is connected to the Central Control switchboard and can control individual power circuits. The emergency circuit will furnish power to both engine rooms, auxiliaries, emergency lighting, steering motors, intercommunication switchboard and A.C. motor generators when the ship's main generators fail.

* FIRE MAIN, FLUSHING, SPRINKLING & DRAINAGE SYSTEMS are described in Sections #6 and #7 of this chapter.

431. Compressed Air System

Compressed air is supplied by the main air compressors operating automatically to supply a pressure of 90 to 110 lbs. per square inch. All the control units in the engineering plant use 30 lbs per square inch as a working pressure. This is later reduced as necessary in other units. All deck outlets are supplied directly from the main air receiver with 90 to 110 lbs pressure.

Section 13. Engineering Casualties - Proceedure

432. Fire in Main Generator

Action	Responsibility
1. Remove excitation at once.	Throttle man.
2. Trip affected turbine.	CMM of watch.
3. Inject CO_2 gas into generator through hand holes, using portable CO_2 fire extinguisher	CMM of watch assisted by upper level man.
4. Notify bridge	Throttle man.
5. When fire is out, survey damage and commence repair if possible.	CEM and Repair Force.

433. Fire in Bilges

Action	Responsibility
1. Close quick closing fuel oil valve.	Burner men.
2. Stop oil pump.	W.T. in charge.
3. Attempt to extinguish fire with portable CO_2 extinguisher.	W.T. in charge.
4. Notify Engine Room	Burner men.
5. Continue attempts to smother fire with CO_2, if fire cannot be controlled use fog nozzle and hose.	W.T. in charge assisted by checkmen and burner men.
6. As a last resort, abandon fire room, close hatches and turn on steam smothering system to fireroom, both in bilges and overhead.	W.T. in charge (last man to leave fireroom)
7. Close boiler main and auxiliary steam stops if possible.	Check man and boiler man.

434. Electrical Fire in Machinery Spaces

Action

1. Take current off affected wiring or motors immediately.
2. Use portable CO_2 fire extinguishers.
3. Notify Officer of the Deck as to location of fire.
4. If portable extinguishers fail to extinguish the fire, use CO_2 bottles.
5. Do not use water or acid extinguishers on any electrical fires.

435. Fire in Boiler Air Casing

Action

1. Close master fuel oil supply valve on settling tanks.
2. Stop fuel oil pump.
3. Close all air escape openings in casings.
4. Close all Boiler Stops.
5. Discontinue feed water to boilers.
6. Open burner register and allow steam and gasses to go up the stack.

436. Loss of Main and Auxiliary Steam

Action	Responsibility
1. Close throttle valves, report casualties to bridge.	Throttle man.
2. Open main and auxiliary steam cross connections.	Throttle man and upper level man
3. Take auxiliary electrical power from the other generator, if in operation.	Distribution board man.
4. Open auxiliary exhaust cross-connection.	Upper level man.
5. Line up condensate to other D.C. Heater.	Lower level man.
6. Build up vacuum.	Upper level man.
7. Start auxiliary machinery.	Lower level man.
8. Restart main and auxiliary turbines.	Upper level man, assisted by throttle man.
9. Restart exciter.	Throttle man.
10. Resume operation, and return to split plant when possible. Notify bridge.	CMM in charge.

437. Steam Leak in Boiler

Action

1. Notify bridge of need to slow down engine. Slow down.
2. Cut out main and auxiliary steam stops.
3. Shut off oil supply to burners.
4. Control feed water and keep in sight.
5. Lift safety valves and superheater valves.
6. When steam pressure is off, let furnace cool off slowly.
7. Do not put water in boiler after steam is off.
8. When furnace is sufficiently cool, examine boiler to find cause of trouble and make necessary repairs.
9. Start up and proceed as normal.

425. Fire in Boiler Air Casing

Action

1. Close master fuel oil supply valve on settling tanks.
2. Stop fuel oil pump.
3. Close all air escape openings in casings.
4. Close all Boiler Stops.
5. Disconnect feed water to boilers.
6. Open Turbine throttles and allow steam and grease to go up the stack.

426. Loss of Main and Auxiliary Steam

Action	Responsibility
1. Close throttle valves, report casualties to bridge.	Throttle man.
2. Open main and auxiliary steam spaces condensations.	Throttle man and upper level man
3. Take auxiliary electrical power from the other generator, if in operation.	Distribution board man.
4. Open auxiliary exhaust cross-connection.	Upper level man.
5. Line up diaphragms to obtain H_2O. Heater.	Lower level man.
6. Build up vacuum.	Upper level man.
7. Start auxiliary machinery.	Lower level man.
8. Restart main and auxiliary turbines.	Upper level man, assisted by throttle man.
9. Restart ejector.	Throttle man.
10. Resume operation, and return to split plant when possible. Notify bridge.	CWO in charge.

427. Steam Leak in Boiler

Action

1. Notify bridge of need to slow down engine. Slow down.
2. Cut out main and auxiliary steam stops.
3. Shut off oil supply to burners.
4. Control feed water and keep in sight.
5. Lift safety valves and superheater valves.
6. When steam pressure is off, let furnace cool if slowly.
7. Do not put water in boiler after steam is off.
8. When furnace is sufficiently cool, examine boiler to find cause of trouble and make necessary repairs.
9. Start up and proceed as normal.

438. Low Water In Boilers

Action	Responsibility
1. Engineers on watch open test cocks to check water in the drum. Dry steam Danger.	
2. Shut off oil supply to burners. Stop fuel oil pump.	Burner Man.
3. Slowly lift safety valves by hand.	Water Tender
4. Close main Stop Valves.	Check Man.
5. Close Auxiliary Stop Valves.	Water Tender.
6. Stop Forced Draft Blowers.	Machinist Mate.

439. Water in Fuel Oil

Action

1. Start the stand-by fuel oil service pump on tank other than the tank in service.
2. If fires have gone out, relight with a torch.
3. Drain out the water through one of the burners or the line from manifold to C-920-F.
4. If fires cannot be started, proceed as with loss of fuel oil suction, closing the necessary steam stops on boilers and keeping steam on the fuel oil standby pumps.
5. As soon as possible get rid of water by pumping out service tanks with transfer pump.
6. Stop pump as soon as oil discharge appears.
7. Use high suction from service tank and proceed to start fires.
8. Put boilers in operation and start machinery under normal conditions.

440. Loss of Feed Water Suction. Feed Pumps.

Action

1. If the Main Feed Pumps lose suction, start the emergency Feed Pumps, opening the necessary steam and water valves, and take suction from reserve feed water tank.
2. Get suction and speed up pumps so as to get water in boiler and bring water up to steaming level in boiler gauge glasses.
3. Stand by to kill fires and carry out low water routine in case water is not restored in the boilers.
4. Put on extra feed and get water into surge tank.
5. Find cause of trouble and make necessary corrections.
6. When the trouble is corrected, shift back to Main Feed Pump.
7. The same procedure is followed in reverse in the case of loss of Feed Pump Suction in Emergency Feed Pump.

438. Low Water in Boilers

Action	Responsibility
1. Extinguish watch open test cocks to check water in the drum. Log steam danger.	Watch Man.
2. Shut off oil supply to burners. Stop Fuel oil pump.	Burner Man.
3. Slowly lift safety valves by hand.	Water Tender
4. Close main Stop Valves.	Check Man.
5. Close Auxiliary Stop Valves.	Water Tender.
6. Stop Forced Draft Blowers.	Machinist Mate.

439. Water in Fuel Oil

Action

1. Start the stand-by fuel oil service pump on tank other than the tank in service.
2. If fires have gone out, relight with a torch.
3. Drain out the water through one of the burners or the line from manifold to C-950-F.
4. If fires cannot be started, proceed as with loss of fuel oil suction, closing the necessary steam stops on boilers and keeping steam on the fuel oil standby pumps.
5. As soon as possible get rid of water by pumping out service tanks with transfer pump.
6. Stop pump as soon as oil discharge appears.
7. Use high suction from service tank and proceed to start fires.
8. Put boilers in operation and start machinery under normal conditions.

440. Loss of Feed Water Suction. Feed Pumps.

Action

1. If the Main Feed Pumps lose suction, start the emergency Feed Pumps, opening the necessary steam and water valves, and take suction from reserve feed water tank.
2. Get suction and speed up pumps so as to get water in boiler and bring water up to steaming level in boiler gauge glasses.
3. Stand by to kill fires and carry out low water routine in case water is not restored in the boilers.
4. Put on extra feed and get water into gauge tank.
5. Find cause of trouble and make necessary corrections.
6. When the trouble is corrected, shift back to Main Feed Pump.
7. The same procedure is followed in reverse in the case of loss of Feed Pump Suction in Emergency Feed Pump.

441. Loss of Fuel Oil Suction.

Action

1. Notify engine room to reduce speed on main engine. Stop if necessary.
2. Close boiler stops on boiler.
3. Open main and auxiliary crossovers.
4. Keep steam on auxiliary steam line from one boiler to feed pumps and fuel oil pumps.
5. Work on fuel system to get oil to the burners.
6. Shut off all burners in use.
7. As soon as fuel oil supply is normal, start plant running again.
8. Possible causes of loss of fuel are:
   (a) Clogged Strainers.
   (b) Air-bound Pump.

442. Failure of Fuel Oil Pump

Action	Responsibility
1. Close off all burners.	Burner Man .
2. Start Stand-by Pump.	Water Tender.
3. If fuel oil fails to reach burners, check tank valves, suction strainers, Discharge Strainers and Vent Pump.	Water Tender & Burner Man
4. Open steam cross over, if necessary.	
5. When fuel oil pressure is restored and steam is on boilers, start plant operating under normal conditions.	

443. Loss of Vacuum

(a) Insufficient circulating water.
Action - Speed up circulator.

(b) No gland seal steam.
Action - (1) Bleed exhaust.
(2) Inspect for faulty exhaust unloader or faulty trap.

(c) Vacuum piping broken or shot away.
Action - Close off affected piping if practicable, and make temporary patch.

(d) Air ejector condenser overheated.
Action - Open re-circulating line to provide cooling water.

(e) Condenser flooded.
Action - Speed up condensate pump or if necessary, start additional pump.

444. High Oil Level in Lube-oil Sump.

Action	Responsibility
1. Determine the cause. If caused by water from leaky coolers, by-pass coolers.	CMM of Watch. Lower Level Man.
2. Start renovator if water if found in Sump.	Lower Level Man.
3. Slow or stop turbine if necessary after first notifying OOD.	CMM of Watch.
4. If high level is caused by new oil running down from storage tank, run oil up to settling tank and close the proper valves to prevent reoccurrence.	Lower Level Man.
5. If a leaky oil cooler tube is the cause, start repairs immediately	CMM & Repair Force.
6. If necessary, stop turbine, dispose of oil, and strike down new oil.	Upper and Lower Level Man. CMM & Throttle Man.

445. Oil in Fuel Oil Heater Drain, Steam Side

Action

1. If oil appears in the fuel and heater drain on the exhaust steam side, open the drain valve to bilge. Do not set the valve for return to feed water contaminated drain tank.
2. Place Stand-by Heater in operation.
3. Cut out leaky heater.
4. If drain shows clean on stand-by heater, shift returns to engine room inspection tank.
5. Shut off all steam and oil from leaky heater, drain heater and make necessary tests to locate leaks.
6. Should oil show in gauge glasses in boilers, give boilers a surface blow.
7. Proceed with necessary repairs to heater.

446. Brick Walls Falling Out

Action	Responsibility
1. In the event of brick falling out of wall, notify Engineer Officer and Chief Water Tender. If serious notify bridge and secure boiler if practicable.	(CMM)
2. If it is safe to keep steam on the boiler cut out fires nearest to the wall damage and continue.	(WT)
3. Make necessary repairs at the first port when time is available to cout out boiler without causing delay in operation of the ship.	

SECTION IV

444. High Oil Level in Lube-Oil Sump.

Action	Responsibility
1. Determine the cause. If caused by water from leaky coolers, by-pass coolers.	CEM of Watch. Lower Level Man.
2. Start removator if water is found in Sump.	Lower Level Man.
3. Slow or stop turbine if necessary after first notifying OCM.	CEM of Watch.
4. If high level is caused by new oil running down from storage tank, run oil up to settling tank and close the proper valves to prevent recurrence.	Lower Level Man.
5. If a leaky oil cooler tube is the cause, start repairs immediately	CEM & Repair Force.
6. If necessary, stop turbine, dispose of oil, and strike down new oil.	Upper and Lower Level Man. CEM & Throttle Man.

445. Oil in Fuel Oil Heater Drain, Steam Side

Action	
1. If oil appears in the fuel and heater drain on the exhaust steam side, open the drain valve to bilge. Be not set the valve for return to feed water contaminated drain tank.	
2. Place Stand-by Heater in operation.	
3. Cut out leaky heater.	
4. If drain shows clean on stand-by heater, shift returns to engine room inspection tank.	
5. Shut off all steam and oil from leaky heater, drain heater and make necessary tests to locate leaks.	
6. Should oil show in gauge glasses in boilers, give boilers a surface blow.	
7. Proceed with necessary repairs to heater.	

446. Brick Wall Falling Out

Action	Responsibility
1. In the event of brick falling out of wall, notify Engineer Officer and Chief Water Tender. If serious notify bridge and secure boiler if practicable.	(CEM)
2. If it is safe to keep steam on the boiler cut out fires nearest to the wall damage and continue.	(CEM)
3. Make necessary repairs at the first port when time is available to cut out boiler without causing delay in operation of the ship.	

447. Excessive Vibration in Turbines.

Action	Responsibility
1. Inspect for following possible causes of trouble. (a) Boilers priming-Water being carried over in turbine. (b) Bearings wiped. (c) Blading carrying away. (d) Thrust bearing. (e) Carbon Packing.	CMM in charge.
2. Check with firerooms if the trouble is caused by water being carried over. Lower water level in boiler.	CMM in charge.
3. If necessary to slow or stop turbine, notify OOD., and Engineer Officer.	CMM in charge.
4. If step three is carried out, secure auxilaries in engine room where casualty occurs, starting dynamo condensing plant if auxiliary generator is to be run.	Upper and Lower Level Men.
5. Close boiler main stop leading to affected engine.	W.T. in charge.
6. Proceed with inspection and repair of affected turbine.	CMM and designated Repair Party.
7. If cause is in carbon packing, slow the turbine until vibration ceases and gradually increase speed.	

448. Metallic Noises in Main Turbine.
(Indicating Blading or Shrouding Carried Away)

Action	Responsibility
1. Notify OOD and immediately trip out turbine.	CMM of Watch.
2. Stop turbine rotor.	Throttle Man.
3. Secure main plant in usual manner.	CMM in charge.
4. Open turbine for inspection & repair.	CMM & designated Repair Force.

447. Excessive Vibration in Turbines.

Action	Responsibility
1. Inspect for following possible causes of trouble. (a) Bolters pumping-water being carried over in turbine. (b) Journals worn. (c) Blading carrying away. (d) Thrust bearing. (e) Gardon Packing.	CMM in charge.
2. Check with firerooms if the trouble is caused by water being carried over, lower water level in boiler.	CMM in charge.
3. If necessary to slow or stop turbine, notify CCO., and Engineer Officer.	CMM in charge.
4. If stop time is carried out, secure auxiliaries in engine room where casualty occurs, starting dynamo condensing plant if auxiliary generator is to be run.	Upper and Lower Level Men.
5. Close boiler main stop leading to affected engine.	W.T. in charge.
6. Proceed with inspection and repair of affected turbine.	CMM and designated Repair Party.
7. If cause is in cation packing, slow the turbine until vibration ceases and gradually increase speed.	

448. Metallic Noises in Main Turbine.
(Indicating Blading or Shrouding Carried Away)

Action	Responsibility
1. Notify CCO and immediately trip out turbine.	CMM of Watch.
2. Stop turbine rotor.	Throttle Man.
3. Secure main plant in usual manner.	CMM in charge.
4. Open turbine for inspection & repair.	CMM & designated Repair Party.

449. Power Failure Caused By Forward Main Generator Excitor (While steaming with both plants controlled by their respective control stations).

Action

1. Bring all controls on forward control board to stop.
2. Notify bridge, officer of watch and after control of casualty.
3. Start auxiliary generator excitor if not running. Cut in on auxiliary generator panel auxiliary excitor supply to forward control board.
4. Notify bridge when this has been accomplished and operate forward plant when so ordered by bridge.
5. Ascertain damage to forward excitor and repair as required.

450. Power Failure Caused by Forward Generator.

Action

1. Bring all controls on forward control board to stop, securing forward generator if necessary.
2. Notify bridge, officer of watch and after control of condition of forward plant.
3. Set up Forward Control Board to operate forward motors from after generator.
4. When set up has been accomplished, Officer of Watch shall notify bridge of intention of operating both motors from after generator supply. When given permission from bridge, Officer of Watch shall supervise shifting of controls utilizing power supply from after generator to operate both motors.
5. Ascertain damage and repair as necessary.

451. Power Failure Caused By Forward Control Board.

Action

1. Bring all controls on forward control board to stop.
2. Notify Bridge, Officer of Watch and After Control of conditions of forward plant.
3. Officer of Watch shall take necessary steps to utilize inter-connection cable from forward Control Board to After Control Board. When above set up has been accomplished bridge shall be notified of intentions of operating forward and after motors, from After Control Board. When permission has been given to shift, the Officer of Watch shall supervise the operation.
4. Ascertain damage and repair as necessary.

Section 14. List of Prints, Booklets & Folders.

452. (A) ENGINEERING & ELECTRICAL BLUEPRINTS

PRINT NO.	TITLE
S38-2-1	Steam Heating System Diagram.
S40-1-4 to 6	Machinery Arrangement.
S40-1-8	Refrigeration Machinery.
S43-1-2 to 3	Port and Starboard Shafts.
S44-0-1	Propeller.
S45-3-9 to 11	Lubricating Oil System.
S48-1-2 to 5	Bilge & Clean Ballast System.
S48-1-28	Overboard Shell Connections.
S48-2-2	Low Pressure Feed System Diagram.
S48-2-4	Air Vapor & Vent Lines Diagram.
S48-2-12 to 13	Main & Condensate Boiler Feed System.
S48-2-14 to 15	Air Vapor & Vent Piping.
S48-3-1	Fire Main outside of Machinery Spaces.
S48-4-19 to 20	Hot, Cold & Drinking Water System.
S48-5-1 to 3	Salt Water Circulating System.
S48-5-7	Water Service Piping to Bearings & Stern Tube Coupling Guards, etc.
S48-9-2	Sounding Tubes & Air Escapes outside of Machinery Spaces.
S48-9-15	Deep Tank Equalizer Piping.
S48-10-1A	Main Steam 450 lb. Superheated.
S48-10-3	Heat Balance Diagram.
S48-10-7	Auxiliary Exhaust Steam System & Escape Piping Diagram.
S48-10-8 to 9	Contaminated Steam System Diagram.
S48-10-13	Escape & Whistle Piping in Stacks.
S48-10-14	High Pressure Steam Drains.
S48-10-15 to 17	Auxiliary Steam Piping.
S48-10-20	Auxiliary Steam System Diagram.
S48-10-23 to 24	Main Steam Piping.
S48-10-27	Low Pressure Steam Drains.
S48-10-30	Bleeder Steam System Diagram.
S48-10-31	Steam Drain Diagram.
S48-10-32 to 34	Auxiliary Exhaust System & Escape Piping.
S48-10-35 to 37	Contaminated Steam System.
S48-10-38	Contaminated Steam Drain System.
S48-14-1	Lubricating Oil Service System Diagram.
S48-15-1 to 3	Heating Coil Supply & Return System.
S48-15-4	Steaming Out System Diagram.
S48-17-1	Diesel Oil System.
S48-24-12	Schedule of Control Valves.
S48-24-13	Schedule of Relief Valves.
S49-1-1	Compressed Air System Diagram.
S49-1-3 to 5	Compressed Air System

452 (cont'd) (A)

PRINT NO.	TITLE
S49-17-1	Diesel Oil System Diagram.
S51-3-1	Soot Blower Piping.
S51-3-3	Soot Blower System Diagram.
S51-3-13	Boiler Blow-down System Diagram.
S51-3-14	Main & Auxiliary Condensate & Boiler Feed Diagram.
S55-0-4	Mechanical Oil Burner & Smoke Making Atomizer.
S55-1-1 to 3	Fuel Oil Transfer & Oily Ballast System.
S55-1-4	Fuel Oil Service System Diagram.
S55-1-6	Fuel Oil Filling & Overflow Piping.
S55-1-20	Fuel Oil Service Piping.
S55-1-29	Piping for Fueling at Sea.
S58-1-1	Low Pressure Double Effect Distilling Plant.Diagram.
S58-1-4	Feed Water Testing System Diagram
S58-1-8	Distilling Plant.
S58-1-18	Makeup Feed Evaporator System.Diagram.
S62-2-1	Electrical Distribution System Diagram.
S62-2-6	Power System Diagram.
S62-2-7	Power System, Engine Rooms.
S62-2-10 to 18	Power System.
S62-2-21	Motors and Controllers.
S64-1-1	General & Battle Lighting Feeders.
S64-1-3 to 13	Lighting System.
S64-3-1	Emergency Lighting.
S64-5-3	Navigation Anchor & Signal Lights.
S65-0-2 to 13	Inter-Communication System.
S65-1-2	Automatic Telephone System Diagram.
S65-1-5	Sound Powered Battle Telephone System.
S65-2-1	Announcing System Diagram.
S65-3-1	Voice Tube System.
S65-4-1	General Alarm System, Wiring.
S65-4-2	Refrigeration Room Alarm System Wiring.
S65-4-3	Fuel Oil & Diesel Oil Alarm System Wiring.
S65-4-4	Fire Detecting & Alarm System Wiring.
S65-4-5	Lubricating Oil Pressure and Level.Alarm System Wiring.
S65-4-6	Electric Whistle Control System Wiring.
S65-4-7A	Call Bell System Wiring.
S65-4-8	Smoke Detector and Alarm System Wiring.
S65-4-10	Sound Powered Telephone Call Bell System Wiring.
S65-5-1	Engine Order Telegraph System Wiring.
S65-5-2	Shaft Revolution Indicator Wiring.
S65-5-3	Rudder Angle Indicator Wiring.
S65-5-5	Gyro Compass Wiring.
S65-5-7	Steering Order Telegraph Wiring.
S65-5-8	Meridan Electric Log Wiring.
S67-1-3	Radio Equipment Wiring.
S68-1-3	Echo Sounding System.
S69-1	Pyrometer System.
S81-6-5 to 6	Degaussing System Wiring.
S87-1	List of Gages.
S87-2	List of Therometers

(B) BETHLEHEM STEEL CO. ELECTRICAL DRAWINGS

PRINT NO.	TITLE
23-S65-1024	Extension of Sound Powered Battle Telephone System.
23-S65-1025	AA Battle Announcing System.
23-S65-1028	AA Battle Announcing, Cease Firing & Salvo Signal System.
23-S65-1029 to 1032	Inter-ship Communication Announcing System.
23-S65-1034 to 1035	General Announcing System.
23-S71-1008	Main Battery Control System.

(C) HULL BLUEPRINTS

PRINT NO.	TITLE
S5-0-1	Mold Loft Offsets.
S5-0-2	Bon Jean Curves.
S5-0-3	Lines and Body Plan.
S7-0-1	Docking Plans.
S11-1-1A & F	Shell Expansion, Aft and Forward.
S11-2-1	Inner Bottom, 1st Platform, 2nd deck plating.
S11-6-5	Main Deck and Upper Deck Plating.
S11-6-7	Superstructure Deck, Navigating Deck, & House Top Plating.
S11-7-8	Ammunition Hoist Trunks.
S11-8-1	Stem.
S11-14-2 to 3	3"/50 Cal. Gun Platforms.
S11-14-4 to 6	20 mm Gun Foundations & Platforms.
S12-6-1	Outboard Profile.
S17-1-6	Stress Analysis of Kingposts.
S18-1-2	Stress diagram of Cargo Booms.
S18-1-4	Rope List.
S18-1-5	Block List.
S18-1-9	Miscellaneous Rigging Fittings List.
S22-0-1A	Rudder and Skeg.
S22-0-9	Rudder Stock.
S28-3-2	List of Label Plates.
S29-1-1	Capacity Plan.
S29-1-5	Flooding Curves.
S29-8-1-A	Compartment Testing Diagram.
S33-1-1 to 5	General Arrangements of Decks.
S38-1-8 to 9	Ventilation.
S38-1-16	Ventilation Diagram, Fan & Heater List.
S48-2-4	Air, Vapor and Vent Lines.
S48-3-1	Fire Main (Outside of Machinery Spaces)
S48-3-2-A	Sprinkling System.
S48-3-4 to 9	Fire Main.
S48-3-12	Sprinkling System and Bill of Material.

(C) HULL BLUEPRINTS (Cont'd)

PRINT NO.	TITLE
S48-4-2	Hot, Cold and Drinking Water System Diagram.
S48-4-7 to 10	Fresh Water System.
S48-5-1	Circulating Salt Water System Diagram.
S48-7-1	Salt Water Sanitary System Diagram.
S48-7-3 to 6	Salt Water Sanitary System.
S48-7-10	Salt Water Sanitary System, Sections and Data.
S48-8-1	Weather Deck and Hold Drains Diagram.
S48-8-2	Plumbing and Deck Drains Diagram.
S48-8-13 to 17	Plumbing and Deck Drains.
S48-9-2	Sounding Tubes and Air Escapes (Outside of Machinery Spaces).
S48-9-9	Sounding Tubes and Air Escapes.
S48-9-14	Deep Tank Equalizer Piping.
S48-10-9	Contaminated Steam Drain System Diagram.
S48-10-31	Steam Drains Diagram.
S48-15-1	Heating Coil Supply and Return System Diagram.
S49-1-1	Compressed air System Diagram.
S55-1-30	Oiling at Sea.
S78-3-2B	Magazines.
S78-3-5B	Magazines - Details.
S78-3-11A	Clipping Rooms.
S93-0-1 to 3	C.O. Two and Smoke Detecting System.
S93-0-8	Portable Safety Devices.

(D) BETHLEHEM STEEL CO. HULL DRAWINGS

PRINT NO.	TITLE
1352	Exhaust Ventilation, Officer's Galley.
1353	Wiring Boxes for 3" Guns.
1361	Hose stowage, 2nd Deck Aft.
1365 to 1368	Heater By-pass Fan Fooms, Main Deck.
1369	Troops Berthing Ventilation Blower & Trunk, Main Dk.
1370	Trash Burner, Main Deck.
1374	Range Finder Foundation.
1375	Watertight Door on Bridge Wing.
1381	Butcher Shop.
1382	Blackout Curtain Support, Main Deck Passage.
1383	Clean Oil Service Tank, After Void.
1388	Heater By-pass, Fan Room, Main Deck.
1389	Air Horns.
1390	Anchor Chain Stopper.
1391	Heater By-pass, Fan Room, Main Deck.
1392	Ventilation, Emergency Diesel Generator Room.
2013-70490	Life Float Releasing Device.
2013-70499	Shelves and Racks in Boat Gear Compartment.
2013-70517	Foundations for Gun Directors.
2013-70518	Ventilation, Main Galley & Bakery.
2013-70527	Foundation for 1000 GPM Diesel Pump.
2013-70533	Exhaust Ventilation, Forward Engine Room.
2013-70534	Exhaust Ventilation, After Engine Room.
2013-70550	Fwd. Emergency Diesel Fire Pump.
2013-70573	Engine Room Exhaust - Forward and After Stacks.
2014-70556	Diesel Fire Pumps.
2014-70559	Arrangement of Fire Main, 2nd Deck.

(E) INSTRUCTION BOOKS AND FOLDERS (ENGINEERING)

FOLDER NO.	TITLE
S22-1	Steering Gear.
S24-3	Clinometer.
S24-9	Motor Driven Sounding Machine.
S38-4	Preheaters & Reheaters.
S38-6	Temperature Controllers-Preheaters & Reheaters.
S38-7	Air Filters.
S41-1	Main Turbine.
S45-2	Lube Oil Strainers.
S45-3	Lube Oil Purifiers.
S46-1	Main Condenser.
S46-3	Auxiliary Condenser.
S46-4	Auxiliary Ejector.
S47-1	Main Feed Pump.
S47-2	Main Oscillating Pump.
S47-3	Auxiliary Circulating Pump.
S47-4	Main Condenser Pump.
S47-5	Auxiliary Condenser Pump.
S47-6	Submersible Bilge Pump.
S47-7	Fire & Sanitary Pump.
S47-8	Feed Booster Pump.
S47-9	Salt Water Evaporating Pump.
S47-10	Brine Overboard Pump.
S47-11	Distillate Circulating Pump.
S47-12	Distillate Condensate Pump.
S47-13	Evaporator Fresh Water Pump.
S47-14	First Effect Coil Drain Pump.
S47-16	Clean Fresh Water Drain Pump.
S47-17	Fuel Oil, Standby Pump.
S47-18	Auxiliary Feed Pump.
S47-22	General Service Pump.
S47-26	Fuel Oil Transfer Pump.
S47-27	Fuel Oil Service Pump.
S47-28	Lubricating Oil Service Pump.
S47-29	Fresh Water Circulating Pump.
S47-30	Ice Water Circulating Pump.
S47-32	Diesel Oil Pump.
S47-33	Hand Pump for Lubricating Oil Pump.
S47-34	Eductor.
S48-23	Refrigeration Space Drain.
S48-24	Bilge, Ballast, Strainers.
S48-25	Bulkhead Flexible Seal.
S48-28	Pressure Reducing Valves-Auxiliary Unit.
S48-29	Pressure Reducing Valves-Circulating Water.
S48-30	Pressure Regulating Valves Auxiliary Exhaust & Miscellaneous Steam.
S48-31	Temperature Regulation Valves, Hot Water System & Lube Oil.
S48-32	Temperature Regulation Valves Recirculation to Main & Auxiliary Condensers.
S48-33	Temperature Regulation Valves Steam to 20 HTR.
S48-34	Steam Relief Valves.
S48-35	Main Feed Pump Governor.
S48-36	Quick Closing Valve Fuel Oil System.

(E) (cont'd)

FOLDER NO.	TITLE
S48-37	Miscellaneous Relief Valves.
S48-42	Governor Valves Fuel Oil Standby.
S48-43	Pressure Reducing Valves - Salt Water to Distilling Plant.
S48-44	Fresh Water Heater.
S48-45	Pressure Regulating Valve Blower.
S48-46	Oil & Water Relief Valves & Lube Oil Service & Standby Pumps.
S48-47	Fuel Oil Heater & Main Feed Pumps.
S48-48	Relief Valves.
S48-50	Atmospheric Relief Valves.
S48-51	Controls - Contaminated & Make-up Feed-Evaporators.
S49-1	Air Compressor.
S51-1	Main Boilers.
S53-1	Forced Draft Blowers.
S55-1	Fuel Oil Heaters.
S55-2	Fuel Oil & Generator Service Strainer.
S55-3	Fuel Oil Service Standby Suction.
S55-4	Fuel Oil Strainers.
S55-5	Fuel Oil Meter.
S55-9	Safety Shut-Off Valve.
S55-10	Safety Shut-Off Valve.
S56-1	Feed Water Heaters.
S58-1	Salt Water Evaporators.
S58-3	Makeup Feed Evaporators.
S59-1	Refrigeration Equipment.
S61-1	Emergency Diesel Generator.
S61-2	Turbo Generators.
S62-1	Engine Room & Main Dist. Switchboard.
S62-2	Motor Control Boards.
S62-4	Power Panel and Controllers Evaporator Space.
S62-5	I.C. Switchboard.
S62-6	Emergency Switchboard.
S62-8	Test Panels & Lamp Bank.
S62-9	Battery Charge Switchboard.
S62-10	Storage Batteries.
S62-11	Power Panels.
S62-12	Engine Room Ventilation Fan Controller.
S62-13	Motor Controller Ice Water Circulator.
S62-14	Motor Controller Galley & Pantry.
S62-15	Motor Controller Submersible Bilge Pump.
S63-1	Electric Pressure Swith Fresh Water Pump.
S63-2	Automatic Door Switch.
S64-10	Boat Flood Lights.
S64-11	Supply Panel.
S64-12	Operating Table Lights.
S64-14	Screened Speed & Truck Lights Controller & Pulsator.
S64-18	Lighting Panels.
S65-1	Electrical Shaft Revolution Indicator System.
S65-2	Mechanical Revolution Indicator & Counter.
S65-3	Fire Detector & Alarm System.
S65-4	Whistle Control.
S65-5	Meridan Log System.
S65-6	General Alarm System.

FOLDER NO.	TITLE
S65-7	Lubricating Oil Low Pressure - Low Level Alarm.
S65-8	Announcing System.
S65-10	Engine Order Telegraph.
S65-11	Steering Order Telegraph.
S65-12	Rudder Angle Indicator.
S65-13	Salinity Indicator.
S65-14	Vibration Bells & Annunciator.
S65-15	Motor Generator Sets.
S69-1	Electric Pyrometer.
S69-3	Portable Electrical Instruments.
S70-2	Signal Pistol.
S81-6	Degaussing System.
S87-1	Liquid Level Equipment.
S87-3	Hand Tachometer.
S87-4	Water Thermometers.
S87-5	Gauges.
S87-6	Thermometers.
S91-1	Drill Press.
S91-2	Engine Lathe.
S91-3	Wet & Dry Grinder.
S92-1	Engine Room Vises.
S93-1	CO2 Fire Extinguishers.
S94-1	Line Throwing Gun.

(F) INSTRUCTION BOOKS AND FOLDERS: (HULL)

FOLDER NO.	TITLE
S7	Docking Plan. (New)
S12-1	Airports and Fixed Lights.
S12-2	Wipers.
S12-3	Wire Hawser Reels.
S16-1	Weather Tight Door Dogs.
S16-5	Hatch Covers.
S17-1	Trollerys and Monorails.
S20-1	Cargo Winches.
S20-2	Motors and Controls for Cargo Winches.
S20-3	Winches for Triple Boat Davits.
S20-4	Mooring Capstans.
S22-1	Steering Gear.
S26	Chain Stopper.
S26-2	Anchor Chain.
S26-3	Anchor Windlass.
S33-7	Sewing Machine.
S34-1	Galley and Pantry Equipment.
S35-1	Laundry and Soda Fountain.
S35-2	Clothing Press.
S36-1	Garbage Grinder.
S36-3	Refuse Burner.
S38-2	Vent Fans and Heaters for Quarters.
S72-10	Ammunition Hoist.
S81-2	Paravane Towrope, Eye Splice on Inboard End.
S93-2	Oxygen Units.
S93-5	Hose Racks.

CHAPTER V

Section 1. Port Duty Bill.

453. The Port Duty Bill outlines the general requirements for watch standing in port. It provides for appropriate degrees of readiness of the ship for action and security. Officers capable of getting the ship underway and performing all departmental duties will be on board ship at all times.

454. Officers will be divided into three and four section duty assignments. Enlisted men of the ship will usually be divided into four sections. Duty will be stood for a 24 hour period commencing each day at 1230, except that the period may be extended to 48 hours over weekends and holidays.

455. The Port Watch and Duty List shall include the following:

a. Head of Department.
b. Departmental Duty Assignments.
c. Deck Duty Assignments.
d. Engineering Duty Assignments.

456. Heads of Departments standing duty as directed in Article 1729, U.S. Navy Regulations, 1920, will comprise the Navigator, Engineering Officer, (if not restricted to the performance of Engineering Duty only), First Lieutenant, Gunnery Officer and such other officer or officers as the Commanding Officer considers qualified for this duty. The Senior Head of Department on the list shall be responsible for arranging the duty list and submitting it to the Executive Officer.

457. Departmental Duty Assignments. Heads of Departments will detail officer and enlisted personnel for departmental watches. The Officers, petty officers and enlisted men assigned will be competent to carry on the duties of the Department in emergencies. The Supply Officer and the Medical Officer will stand watch with one of their department sections.

458. Deck Duty Assignments shall include the Officer of the Deck, if so ordered, the Junior Officer of the Deck and details specified in the table below:

DUTY	RATE	DIVS FURNISHING	NO. ON WATCH	PERIOD OF WATCH
BM of watch	BM	1st-2nd-Boat	1	Reveille to taps unless otherwise directed
QMof watch	QM	C&N	1	Continuous watch.
Messenger	Seaman	1st-2nd-Boat	1	Reveille to taps (alternate watches).

DUTY	RATE	DIVS. FURNISHING	NO. ON WATCH	PERIOD OF WATCH
Jeep Driver	MoMM, Cox	Boat	1	Continuous watch.
Sentry	Seaman	1st-2nd	as ordered	Continuous watch.
Signal Watch	SM	C&N	as ordered	Continuous watch.
Guard Mail				
P.O.	RdM	C&N	1	Day's Duty
Anchor Watch	Seaman	1st-2nd	2	Taps to Reveille.
Boat Crews		Boat	as ordered	
Security Watch	CM	"R"	1	Taps to Reveille.

459. Officer of the Deck Watch will be stood by officers of the line who have been qualified in accordance with instructions set forth in Article 1294, U.S. Navy Regulations, 1920. The watch list shall be made out by the Senior Watch Officer.

460. The Junior Officer of the Deck shall stand a strict and regular watch and perform such duties as the Officer of the Deck assigns him or as are specifically assigned in the Ship's Organization and Rugulations Book or by the Officer of the Deck's Order Book.

461. Engineering Department Duty Assignments. The officers and men of Engineering Department will be divided into three or four section watches, any one section of which will be qualified to operate the main boilers and engines as well as the auxiliary machinery usually manned in port or at sea.

SUMMARIZED OFFICERS' DUTY LIST (3 section)

	1st Section	2nd Section	3rd Section
Head of Dept.	Navigator	First Lieut.	Gunnery Officer
C&R	Ass't First Lieut	Boatswain	Carpenter
Engineer	Engineer Off.	"M" Div.Off.	"A" Div.Officer
Communications	Comm. Officer.	Ass't Comm.Off.	Radio Officer
Medical	Ass't Med. Officer	Medical Officer	Ass't Med.Officer.
Supply	Disbursing Officer	Pay Clerk	Supply Officer
OOD	Watch List	Watch List	Watch List
Jr.Eng.Watch	C.M.M.	Electrician	Machinist
Miscellaneous	T.Q.M.	Chaplain	Ass't Navigator
	Dental Officer.	Pay Clerk	Intelligence Officer

4 SECTION DUTY LIST

	1st Section	2nd Section	3rd Section	4th Section
Head of Dept.	Navigator	First Lieut.	Gunnery Off.	Ass't Navigator
C&R	Ass't First Lt.	CSF	Carpenter	Boatswain
Engineer	Engineer Off.	"M" Div.Off.	"A" Div.Off	Machinist
Communications	Comm. Officer	Ass't Comm.Off.	CSM	Radio Officer
Medical	Ass't Med.Off.	Medical Off.	Ass't.Med.Off.	Dental Officer
Supply	Disbursing Off.	Pay Clerk	Supply Off.	Pay Clerk
OOD	Watch List	Watch List	Watch List	Watch List
Jr.Eng.Watch	CMM	CMM	CMM	Electrician
Miscellaneous	TQM	Chaplain	Intelligence Officer.	

462. The Anchor Watch shall be mustered and posted at 2100. The seamen shall stand continuous watches (2100-2400, 0000-0300, 0300-0600) and be stationed as follows: One seaman on the main deck aft, and one seaman to stand duty as Officer of the Deck's messenger on the quarterdeck. The fan tail watch shall carry flash-light and be armed with an automatic pistol or rifle. The members of the Anchor Watch not actually on watch shall sleep in a space designated by the Officer of the Deck.

463. A three or four section communication watch of radiomen, radio technicians and radarmen will be prepared by the Communication Officer and when approved by the Executive Officer, will be treated as a separate duty list.

464. Provision will be made for compiling and publishing a Port Watch Bill Duty List.

465. The standing of duty and granting of liberty shall be governed by Article 1729 (10), U.S. Navy Regulations, 1920, and by the Fleet and Force Regulations in effect.

466. Requests to change day's duty or assigned watches shall be made to the Executive Officer in the case of officers, and to Division Officers in the case of enlisted men. Deck Watch Officers shall submit such request to the Executive Officer via the Senior Duty Officer.

Section 2. Special Sea Details

467. The Special Sea Details will be set by the Officer of the Deck when getting underway, coming to anchor or entering port. The following is a list of the stations to be manned with the ratings required and divisions responsible.

Bridge:	No.	Rate	Div.
Bearings, Leadsman, etc.	1	QM	C&N
Bearings, Colors, etc.	1	QM	C&N
Bearing Recorder	1	QM	C&N
Helmsman	1	QM	C&N
Lee Helmsman	1	S	Reg. Sea Watch
Engine Order Telegraph	1	Y	C&N
Officer of the Deck Messenger	1	S	Reg. Sea Watch
Boatswain's Mate of the Watch	1	BM	Reg. Sea Watch
Quartermaster of the Watch	1	QM	C&N
JV Talker	1	Y	C&N

468.

Other parts of ship:	No.	Rate	Div.
(a) **Jack Staff	1	S	1st
(b) **Speed flags and cones	2	SM	Reg. Sea Watch
(c) Anchor Windlass	3	SF & CM	"R"
(d) Steering Engine Room	1	QM	C&N
	1	MoMM	Reg. Sea Watch
(e) Talkers: Forecastle	1	S	1st
Quarterdeck (Bat 2)	1	Y	C&N
Fantail	1	S	2nd
Engine Room	1	F	"M"
(f) Fog Watch Detail: (when necessary)	2	S	1st
(g) Line-throwing guns: (Fore & Aft)	2	GM	1st & 2nd
	2	S	" "
(h) Searchlights	1	EM	"E"

** Manned if getting underway, or anchoring during daylight.

Section 3. Getting Underway and Anchoring Bill

469. Routing for Getting Underway.

TIME	EVENT
1. 2 hours before getting underway.	Refer to the Orders of the Day and Special Orders for getting underway, regarding boats, booms, accommodation ladders, and mail. Plan boat trips to allow all boats to return in sufficient time for hoisting. Pass the word as to the hour of getting underway.
2. 1 hour before getting underway.	(a) Pass the word, "Set Material Condition BAKER", if not already in that condition.
	(b) Man all ship control telephones for tests, and secure after testing. Hoist boats no longer needed. Rig in boat booms when no longer needed. Rig in or trice up accommodation ladders as directed. Notify Navigator, Engineering Officer, Gunnery Officer, Boatswain and Carpenter of the time of getting underway. Pass the word as to the uniform.
3. 30 minutes before getting underway.	(a) Test steering gear, engine order telegraphs and bridge instruments. Require Carpenter to report ship's draft forward and aft and enter it in the ship's log.
	(b) Pass the word, "Go to your station all special sea details". Test main engines with steam (obtain Captain's permission first). Make sure all is clear astern.
4. 20 minutes before getting underway.	(a) Pass the word, "All departments make your readiness for getting underway reports to the Officer of the Deck on the bridge". Check on the presence of the Special and regular sea details on the bridge. Have ship control communication established by tests. If ship has been in port or civilian visitors have been aboard, have Chief Master-at-Arms report that the ship has been searched for stowaways; log report.
	(b) Report ship ready for getting underway to the Navigator and Executive Officer first, and then to the Captain.

5. As ordered by the Executive Officer.	Heave short on orders. Carry out any special orders.
6. When anchor is aweigh.	If daytime, shift colors, lower jack and anchor ball, if in use. At night, out anchor lights and turn on underway lights.
7. After clearing harbor.	Secure the special sea details and set the regular sea watch. (Obtain Executive Officer's permission first.)

470. Anchoring

As soon as definite information in regard to anchoring is received, the Officer of the Deck shall plan every detail so that upon letting the anchor go, all divisions will have a complete understanding of what is expected of them and will carry out their assignments quickly and efficiently. Boat booms, boats, and accommodation ladders should start out with the letting go of the anchor.

471. Routine for Bringing Ship to Anchor

TIME	EVENT
1. 2 hours before anchoring.	Ascertain from the Executive Officer, if written orders have not been issued, particulars as regards accommodation ladders and boat booms to be rigged, boats to be hoisted out, special boat trips or orders; mail, mail clerk, and guard mail. Notify Division Officers concerned of preparations to be made. Dump garbage and pump bilges, complying with existing war instructions as to restriction, depth of water, and distance from land. Arrange for stationing of port details.
2. 1 hour before anchoring.	(a) Pass the word as to the time the ship expects to anchor; notify Navigator, First Lieutenant, Executive Officer, Gunnery Officer, Communication Officer, Engineering Officer, Boatswain and Carpenter. Pass the word as to the uniform.
	(b) Prepare all anchors for letting go. In daytime, pipe down all scrubbed and washed clothes and scrubbed canvas. Clean up decks for entering port. Require Boatswain's Mate of the Watch, to inspect top sides to insure that they are shipshape. In fine weather, have all gun covers, searchlight covers, etc., removed.
3. 30 minutes before anchoring.	Pass the word, "Go to your station all special sea details". Check the bridge details and test the ship control communication by tests as soon as manned. Have all hands on deck shift to the uniform of the day. Test the anchor windlass. Notify the Engine Room of approaching anchorage.

471 (cont'd)

4. Upon letting go the anchor.	During the day, shift colors, hoist jack and anchor ball (if in a fair way). During the night, out underway lights and turn on anchor lights. Require the Carpenter to report the ship's draft forward and aft and enter it in the ship's log.

472. Officers' Stations for Getting Underway and Anchoring:

a. Captain - - - - - At the Conn on the bridge.
b. Executive Officer Relieves the Deck.
c. Navigator - - - - On Navigation bridge.
d. Engineering Officer In engine room.
e. Asst. Eng. Officer In engine room.
f. Communication Off. On the bridge.
g. First Lieutenant In charge of forecastle and ground tackle.
h. Gunnery Officer - In charge aft on main deck.
i. Boatswain - - - - Assist the First Lieutenant on the forecastle
j. Carpenter - - - - Station details for anchor windlass; take draft.
k. Electrician - - - Station electrical details for anchoring.

473. Divisional Assignments.

Responsibilities of Divisions for getting underway and anchoring are assigned as indicated below.

DIVISION	STATION AND DUTY
1st - - -	Anchor gear, booms, fenders and lines forward.
2nd - - -	Quarter booms, gangways, jacob's ladder, booms, fenders and lines aft.
"R" - - -	Anchor windlass.
C&N - - -	Bridge instruments, Engine Order Telegraph, Steering Gear, Gyro-repeaters on Bridge, Colors, anchor ball, etc.
"A" - - -	Machinery in Steering Engine Room.
"M" - - -	Main Propulsion Plant and auxiliaries.
"E" - - -	Electrical Controllers and Switchboards, and Deck Machinery, Master Gyro.
Boat - -	Boats and davit winches.

Section 4. Mooring Alongside Pier or Another Vessel.

474. The following lines are normally used in going alongside a pier:

Name & Number of Line	Location of Chock	Div. Responsible
Bow wire	Bow Bullnose	First
Bow line #1	Deck 01, Frame 0	"
After Bow Spring #2	" " 50	"
Fwd Bow Spring #3	" " 70	"
Aft Quarter Spring #4	Deck 1, Frame 125	Second
Fwd Quarter Spring #5	" " 165	"
Stern wire	Outboard chock on Transom	"

Note: Any of the Spring lines noted above may be used as a breast if warranted by conditions.

475. Prior to Docking, under the direction of the First Lieutenant, all necessary lines will be roused out and faked down on deck so as to be readily available. The required lines, with eye splices in them should be lead out through the chocks and up over the life lines. Heaving lines should be made fast to the eye splices and properly coiled.

476. Deck Division Officers will see that all personnel are instructed in smart line handling. Heaving lines should be passed as soon as possible - but not so soon that they fall short on the heave.

477. When line handling parties are required on the dock, the First Lieutenant will arrange to have them put ashore early. Lines fleeted up the dock should be moved in short fleets to have them available as much as possible. If two bights are to go on one ballard, the second bight must be placed underneath and up through the first bight - permitting either to be thrown off independently.

478. Officers in Charge

The First Lieutenant shall be in charge forward; the Gunnery Officer shall be in charge aft.

479. All orders for line handling emanate from the bridge. But care must be taken by those in charge of lines to keep the bridge fully aware of conditions at each station. In particular, the officer in charge of lines aft must determine from the bridge the status of the propellers and insure lines are clear if propellers are to turn over. The Bridge must consider the status of the lines aft prior to ordering the engines ahead or astern.

480. Securing.

a. Generally the last order received at a line will be, "Double up and secure". Those in charge must remain at their post until this is completed, including such ~~seizing, rot guards,~~ chaffing gear, etc., as may be necessary.

481. Mooring to One or Two Buoys.

a. The First Lieutenant will be in charge forward; the Gunnery Officer will be in charge aft. The Boatswain will be in charge of preliminary preparations and handling the anchors and chains. The Carpenter will be responsible for the proper handling of the deck machinery under the direction of the First Lieutenant.

b. Division's responsibility is as follows:

Division	Station	Provides
1st	Forecastle	All necessary gear and buoy party forward.
2nd	Fantail	All necessary gear and buoy party aft.
Boat	Boat Davits	Boats and Crews.

482. Each buoy party shall consist of a Boatswain's Mate and two Seamen First Class.

483. When mooring to a buoy forward, the port anchor is stoppered by means of a wire strap to the turnbuckle at the base of the anchor windlass with a wire preventer to the port bitts. The port anchor chain is then broken at the connecting shackle just above the open link at the anchor bending shackle.

484. An 8" manila mooring line is lead out through a bow chock and lowered into a boat containing the buoy party. The buoy party carries the line out to the buoy and secures it by reeving the eye through the mooring ring and jambing a 4" x 4" timber through the eye. This line acts as a preventer while the moor is being made.

485. A manila messenger is now bent to the third link of the anchor chain by means of a wire strap and shackle, and after securing a U-shackle on the end link of the chain, the bitter end of the messenger is lead out through the bow bullnose to the boat. It is carried out to the buoy, reeved through a mooring ring and brought back to be passed aboard through the bullnose.

486. The Ship heaves round on the messenger while veering chain until the U-shackle is in position to be secured to the buoy. The first manila line is then brought aboard.

487. When mooring aft, the stern wire is carried out in a boat by means of a short messenger and shackled to the buoy.

488. In unmooring forward, the messenger is reconnected and the strain taken off the chain, allowing the U-shackle to be broken, after which the chain is heaved up on deck; the messenger slipped and the anchor reconnected.

Section 5. Docking Bill.

489. The responsibilities of the Commanding Officer and of the Docking Officer are set forth in Article 1505, U.S. Navy Regulations. A vessel entering a drydock should be without list or excessive trim. The Commanding Officer shall see that the docking authorities are in possession of the draft forward, and aft, and the Ship's docking plans.

490. Docking and undocking ship is an all hands evolution, and the stations to be manned are in general the same as those for Getting Underway and Anchoring. The word will be passed "All hands, prepare to dock (or undock) ship."

491. Department Duties.

a. Prior to Docking.

(1) The Navigator will determine the date, hour, and place of docking, state of the tide, depth of water over the sill, depth of water over the keel blocks, when and where the pilot will board, how many tugs will be available, and whether ships engines and rudder will be required.

(2) The First Lieutenant will be in general charge of docking operations, will insure that the docking authorities obtain the docking plans for the ship, ascertain whether ship's line handling parties will be required, arrange to obtain necessary cleaning gear from the docking authorities, hoist boats in or out as necessary, arrange for fire main, fresh water, head and sanitary connections, to tend outboard valves and fittings as necessary, insure that fittings projecting from the hull of the ship will not be damaged by docking, and finally, rouse out necessary handling lines on deck.

(3) The Engineering Officer will arrange for such steam, light, and power connections as may be necessary, and insure that all engineering outboard connections are tended.

(4) The Communications Officer will arrange for telephone connections and such signal and communications guards as may be necessary while the ship is in dry dock.

(5) The Gunnery Officer will ascertain whether ammunition will be removed due to work on the magazines and, if so, make the necessary arrangements.

(6) In addition, all Department Heads have a particular responsibility in that their Repair and Alteration Request which have been prepared beforehand must be on hand for presentation to the proper authorities.

a. During Docking.

(1) The Navigator will obtain the usual information for the log, including the exact time and place of docking, the draft forward and aft, the name of pilot and docking officer, the names and numbers of tugs used, the time of grounding, etc. The First Lieutenant will insure that the personnel engaged in cleaning the sides follow the progress of the water level and do not leave holidays.

b. After Docking.

Hull Board will make inspection as prescribed in U.S. Navy Regulations, and C & R Manual, Section 1 and 3. Any shift in distribution of oil, water, stores, or other weights should be avoided in dry dock. If such a shift must be made, docking authorities will be consulted, and prior approval obtained.

492. General

(a). In dry dock, the Chief Master-at-Arms will see that all heads are closed until sewage disposal is connected.

(b). While in dry dock no oil, water, garbage, sewage, etc., will be discharged from the ship into the dock without the approval of docking authorities.

(c). While in dry dock the Commanding Officer of the ship is responsible for the proper closure overnight of all external openings. A report on this will be presented with the 2000 reports by the First Lieutenant and the Engineer Officer.

(d). The policing of the dock will be the responsibility of the First Lieutenant who ensures that the dry dock bottom and dock abreast of the ship is properly policed at all times, and that arrangements are made for the proper disposal of refuse, etc.

(e). Under the direction of the First Lieutenant, all Division Officers will provide men as necessary and arrange for gear as required to assist in cleaning, ship's force repair jobs, and will be responsible for the safety of men working over the side. All staging will be fitted with life lines and each stage will be tended from the topside.

(f). All welding, burning, cutting, etc., will be done only after an adequate fire watch is maintained. Division Officers will detail men as necessary.

493. Undocking.

(a). Prior to undocking each Division Officer will inspect the section of the ship for which he is responsible to insure that all external fittings are closed and his division is ready to undock. The First Lieutenant will make a general inspection of the hull, and report, with the Heads of Departments, to the Executive Officer. The Executive Officer will then report Readiness for Undocking to the Commanding Officer.

(b). During the flooding of the drydock responsible men shall be stationed by all sea connections until after the ship is waterborne, in order that any leaks will be discovered before the ship rises off the keel blocks.

(c). The dock abreast the ship and the drydock will be left clean and ship-shape.

Section 6. Cargo Handling Bill

494. An Attack Transport is a combatant vessel and the loading and unloading of ships of this class is to be regarded as a military evolution. It is therefor imperative that it's personnel be trained to handle troops and cargo rapidly and efficiently in order that they be supplied not only to meet the initial tactical situation ashore, but later to hold what has been seiged.

495. Combat Loading.
In Assault Operations Troop Units with their combat equipment, vehicles and supplies are loaded on Attack Transports in such a manner that they can engage in immediate combat upon landing. This requires careful planning, based on the capacity and cargo handling facilities of the ship, and the type and priority of cargo to be unloaded.

496. Ship's Transport Quartermaster.
The Ship's Transport Quartermaster is an expert advisor on loading and troop liaison, detailed to this duty by the U.S. Marine Corps. His duties generally are as follows:

(a). Act as the direct representative of the Commanding Officer in matters relating to loading and unloading troop cargo and the embarkation, billeting and messing of troops.
(b). Advise and assist the Troop Transport Quartermaster in the preparation of loading and billeting plans.
(c). Perform liaison with the C.O. of Troops during both planning and operational stages of an assault operation.
(d). Compile unloading tables and records as necessary and submit required reports on the status of loading and unloading.
(e). Command the Ship's Marine Detachment, if one is attached.

497. Ship's Characteristic Data.
The Ship's Transport Quartermaster will maintain an up-to-date record of all ship's data affecting troops, their supplies and equipment. This data will include:

(a). Profile diagram of the Ship.
(b). Plans of all cargo holds, showing deck area, cubic capacity, dimensions, hatch openings, clearances, etc. (Drawn at a scale of 1/8" = 1'-0").
(c). Plans of Troop Berthing Compartments showing number and location of all bunks, ladders, openings, etc.
(d). Plan of Officer's Staterooms, Wardroom and Heads.
(e). Table of boom locations and capacities and list of cargo nets, slings, etc.
(f). List of Landing Craft (number & type).
(g). Troop toilet, washroom, shower and messing facilities.
(h). Sick Bay and Medical facilities.
(i). Number and location of Debarkation ~~nets and Davit stations.~~

498. Unloading During Assault Operations.
Assuming that cargo is stowed on a proper priority basis, the following factors must be considered to insure expeditious unloading:

(a). Number and priority of vehicles whose size or weight requires boats larger than Ship's boats (LCVP).
(b). Number and priority of lifts requiring doubling up of cargo gear.
(c). Relative number of lifts in each hold.

To achieve maximum efficiency, the three cargo holds must complete unloading simultaneously. Division Officers shall be responsible for keeping the Debarkation Officer continually informed as to the unloading status of the holds under their cognizance to enable him to assign boats to holds to the best advantage.

499. Cargo Handling Teams.
Winchmen, hatch tenders, line handlers, and Boatswain's Mates in charge are assigned by the Deck Division Officers responsible as set forth under the Cargo Control Section of the Battle Bill, Section Two, Chapter #3. These teams shall be continuously instructed and trained in all phases of cargo handling to allow for replacements in emergencies.

500. Safety Precautions.
Deck Division Officers will be held responsible for the safe working of all cargo handling gear in their respective divisions, and will immediately report any necessary replacements to the First Lieutenant and Boatswain.

The following notes are listed as a general guide to proper working procedure:

(a). No lift exceeding the rated capacity of a boom will be handled on that boom.
(b). A sufficient number of steadying lines must be used at all times in hoisting boats and vehicles.
(c). All swinging lifts shall be steadied from behind.
(d). Personnel will not be allowed to stand beneath a load being lowered or hoisted.
(e). Men working aloft must keep one hand free for emergencies.
(f). All tools carried aloft shall be secured to the man carrying them by means of a lanyard.

Section 7. Towing Bill.

501. There are two phases of towing to be considered:

(a). When the FELAND is towing another vessel;
(b). When the FELAND is being towed.

In general, a towing vessel will approach the tow on a parallel heading from astern. If drifting faster than the tow, the approach is made to windward; if drifting slower, to leeward. The approach is made so that the towline may be passed when the bows of the ships are nearby abreast, keeping sufficient headway to allow crossing the towed vessels' bow if the difference in the rate of drifting is considerable.

A - FELAND towing.

502. Ship's Towing Gear
The towing chocks are located outboard, port and starboard on the fantail, with towing bitts on the Main Deck, port and starboard at Frame #168, Two reels on the Upper Deck, Frame #122, contain a $1\frac{3}{4}$" wire towline and a $1\frac{1}{2}$" wire bridle.

503. Preparation for Towing
While underway during assault operations the towing gear is rigged as follows: The wire forming the bridle is run completely around the coaning of #5 Hatch and led aft on each side where four or five figure eight turns are made around the towing bitts. From there, approximately forty feet of wire is run out through each towing chock, the two ends bent together by means of a U-shackle, and the bridle secured against the life line across the counter.

When the necessity for towing arises, the towing wire is run out of the reel and led forward along the Upper Deck to the bow, outboard of all obstructions on the side toward the tow. The wire remaining on the reel is faked out on the Quarterdeck until the end is reached, after which the standing part is carried aft outboard and shackled to the bridle. The wire is then secured with small manila stoppers in loops along the ship's side. A five inch manila messenger is bent to the bridle connecting shackle for retrieving the towing wire.

504. Equipment
The following equipment is laid out in preparation for passing the towing wire:

(a). Forecastle.
1. Two line-throwing guns with spare spindles and cartridges.
2. 75 fathoms of 2" and 75 fathoms of 4" manila messenger line.

(b). Fantail.
1. Tools, chafing gear, etc.
2. Acetylene torch for emergency use.

505. Passing the Towline.

When ships are in proper position, the line-throwing gun is fired from the forecastle, passing the line with the messengers bent on across the bow of the tow. As the slack is taken out of the messenger, the stoppers on the towing wire are progressively cut until the towline runs free from the bridle.

506. Casting off the Tow

The towed vessel usually casts off, but in an emergency, this may be done by allowing the tow line to become slack and bringing the connecting shackle aboard by means of the messenger, heaving round on the after capstan. The acetylene torch may also be used, if necessary.

507. Precautions

Care must be exercised in cutting towline stoppers to prevent the bight of the towing wire from fouling superstructure projections, screws, etc. The Ship's course and speed, when beginning to tow, must be regulated to prevent sudden strains on the tow line.

B - FELAND being towed.

508. Preparation for being towed.

The port anchor connection is broken and the anchor secured by means of a wire stopper and preventer. The anchor cable is then walked out sufficiently to allow for convenient connection to the towline. If necessary, a chain stopper is secured to the port bitts as a means of supporting the weight of the towline bight while connecting. The anchor windlass is then disconnected and the brakes are set.

509. Receiving the Towline.

Towline messengers are brought up through the bow bullnose, run to the windlass drum, and the towline hauled up on deck where it is held while the connection is made. The anchor windlass is then connected up and the anchor cable walked out through the bullnose in preparation for towing. The length of the towline may later be adjusted by walking out or heaving round on the chain. The strain on the towline is taken up by the anchor pawls and deck stoppers.

510. Casting off the Tow.

To cast off, the windlass is heaved round until the connecting shackle is on deck. The weight of the towline is taken on the messenger and the connection is broken, after which the towline and messenger are paid out.

511. Officers' Stations and Duties.

Executive Officer	- In general charge.
First Lieutenant	- In charge of the deck divisions and preparations for towing.
Navigator	- Relieves the deck during the maneuvering for approach.
Engineer Officer	- Stands by in the After Engine Room.
Division Officers	- Superintend the towing details in respective divisions.
Boatswain	- In charge of preparations for rigging gear.

[illegible] the Towline.

When either one of the [illegible] rigging, the line-thrower, [illegible] from the forecastle, [illegible] the line with the messenger [illegible] across the bow of the tow. At the stack is taken out of the messenger, the chopper on the towing wire are progressively [illegible] until the towline runs free from the bridle.

[illegible] Casting off the Tow.

The towed vessel usually casts off, but in an emergency, this may be done by allowing the tow line to become slack and by [illegible] the connecting shackle shown by member of the messenger, leaving [illegible] on the after capstan. The rescuing tow may also be used, if necessary.

[illegible] Precautions.

Care must be exercised in setting towline stoppers to prevent [illegible] of the towing wire from fouling superstructure, projecting [illegible], arrows, etc. The angle's arrow and speed, when beginning to tow, must be regulated to prevent sudden strains on the tow line.

3 - PLANS being towed.

[illegible] Preparation for being towed.

The port anchor connection is broken and the anchor secured by means of a wire stopper and tackle. The anchor cable is then [illegible] out sufficiently to allow for substitute connection [illegible] towline. If necessary, a chain stopper is secured to the port bitts as a means of supporting the weight of the towline [illegible] while a hawsepipe. The anchor windlass is then disconnected and the brakes are set.

[illegible] Receiving the Towline.

Towline messengers are brought in through the bow bullseye, [illegible] the windlass drum, and the towline hauled on as each works it in [illegible] while the connection is made. The anchor windlass is then connected up and the anchor cable walked out through the bullseye in preparation for towing. The length of the towline may later be adjusted by walking out or hearing round on the chain. The strain on the towline is taken up by the anchor pawls and deck stoppers.

[illegible] Casting off the Tow.

To cast off, the windlass is heaved round until the connecting shackle is in view. The weight of the towline is taken on the [illegible] and the connection is broken, after which the towline and messenger are paid out.

[illegible] Officers' Stations and Duties.

Executive Officer - In general charge.
First Lieutenant - In charge of the deck detachment and preparations for towing.
Navigator - Relieves the [illegible] during the maneuvering for approach.
Engineer Officer - Attend to the after towing [illegible]
Towing Officers - Supervised the towing details in respective divisions.
[illegible] - In charge of preparation for mooring [illegible]

Passing the Towline.

When alongside an approaching vessel, the line-thrower will stand from the forecastle, usually the time with the messenger line across the bow of the tow. As the block is taken out of the messenger, the shackles on the towline wire are progressively put until the towline runs free from the bridle.

Casting off the Tow.

The towed vessel usually casts off, but in an emergency, this may be done by allowing the tow line to become slack and by letting the connecting shackle shackle by means of the messenger, beyond reach in the after capstan. The capstan brake may also be used, if necessary.

Precautions.

Care must be exercised in setting towline shackles to prevent the right of the towing wire from fouling superstructure projections, arrows, etc. The bridle stress and speed, when bending, must be regulated to prevent sudden strains on the tow line.

B - FIXED being towed.

Preparation for being towed.

The port anchor connection is broken and the anchor secured by means of a wire stopper and preventer. The anchor cable is then pulled out sufficiently to allow for connection to the towline. If necessary, a chain stopper is secured to the port bitts as a means of supporting the weight of the towline in the event of a breakaway. The anchor windlass is then disconnected and the brakes are set.

Receiving the Towline.

Towline messengers are brought up through the bow bullnose, from the windlass drum, and the towline hauled up on deck where it is held while the connection is made. The anchor windlass is then connected up and the anchor cable walked out through the bullnose in preparation for towing. The length of the towline may later be adjusted by walking out or heaving round on the chain. The strain on the towline is taken up by the anchor cable and deck stoppers.

Casting off the Tow.

To cast off, the windlass is heaved round until the connecting shackle is on deck. The weight of the towline is taken on the messenger and the connection is broken, after which the towline and messenger are paid out.

Officers' Stations and Duties.

Executive Officer - In general charge.

First Lieutenant - In charge of the deck stations and preparations for towing.

Navigator - Relieves the deck during the maneuvering for operation.

Engineer Officer - Stands by in the After Engine Room.

Division Officers - Supervised the towing details in responsible duty.

Boatswain - In charge of preparations for hoisting gear.

512. Divisional Responsibilities

The Second Division is responsible for the stowage, upkeep and rigging of towing gear aft. The First Division will be similarly responsible forward.

513. Communications.

(a). Communications between ships during the passing of the tow-line may be carried out by means of bullhorns, megaphones or signal searchlights. Under favorable conditions a boat may be despatched from the towing ship with full information as to the proposed method of passing the line, type of towing gear, towing signals, etc.

Whistle signals, as agreed between the ships, should be used after towing is begun.

(b). The JV Phones at the forecastle and fantail will be manned by the First and Second Divisions respectively.

514. The Paravane gear consists of the following:-

a. Two paravanes, one starboard and one port, and two spares.
b. One chain, preventer, 5/8", for paravane sliding shoe.
c. Two stoppers, paravane, carpenter's for 11/16", wire rope.
d. Two stoppers, paravane, carpenter's special, for 5/8" wire rope.
e. One box of paravane tools and spare parts.
f. Six ropes, towing, 11/16" wire, 168' long.
g. One sliding shoe device.
h. Five ropes, inhaul, plow steel, 5/8" diam.
i. One rope, wire, uphaul, 5/8" diameter, complete, (for lowering sliding shoe into position).
j. Five wires, tripping, 3/8" diameter, length 125 feet.
k. Other miscellaneous equipment, such as paravane booms and guys, davits and guys for lowering the shoe device, back hauls, etc.

515. When paravanes are in the water, there should be one on each bow, at the set depth, each riding to its towing wire leading to the point of tow.which is sliding shoe lowered into position against the stem of the ship near the forefoot. The paravanes should ride out from the ship's sides, keeping the towing wire taut, protecting the ship by deflecting outward any mine anchor cables encountered and allowing the jaws of the paravane to cut the cable

516. Calls for Streaming or Taking In
Pass the word over the Public Address System or via Boatswains Mate; "Standby to stream paravanes," or " Take in paravanes."

517. Stations.

a. First Lieutenant - In general charge.
b. Boatswain - In charge of forecastle.
c. 1st Division Officer - Starboard side of forecastle.
d. 2nd Division Officer - Port side of forecastle.
e. Phone talker - Forecastle.

518. Division Duties.

a. The 1st Division will handle the paravanes and all gear in connection with streaming them on the starboard side. The 2nd Division will do likewise on the port side.

b. Paravane details from each division are as follows:

1. One BM and 3 men at the drum of each winch.
2. One Cox and 1 Seaman at each easing-out wire.
3. One Seaman with maul at each Carpenter stopper.
4. One Seaman with knife at each hemp stopper.
5. Four men at each of the boom guys.
6. One BM and 4 men at each paravane to steady it over the side.
7. One man with tail line on each paravane, keeping the paravanes in position for launching.

519. Preparations.

a. When possible, the deck force should be given approximately four hours notice in order to have the necessary time to rig paravanes prior to launching.

b. Prior to the time set for streaming the paravanes, the following preparations should be made.

c. Rig both paravane booms, (cargo booms at #2 hatch).

d. Rig sliding shoe and davit.

e. Place the paravanes on deck under the booms in position for hoisting over the side.

f. Connect the closed socket end of each towrope to the after eye of the sliding shoe by means of the shackle provided.

g. Lead towrope aft through the easing-out hook and make the bight fast to the Carpenter stopper, leaving enough slack in the rope forward so that the sliding shoe may be lowered into the towing position without strain. Lead the towrope on aft, stopping it aft of the Carpenter stopper by means of 3 dry turns of light hemp. Sufficient slack should be left in the towrope aft of the hemp stopper to allow the paravanes to fall freely into the water before breaking the stopper.

h. Connect the other end of each towrope to the cutter-head on the paravanes, taking care that the chamfer on the towing sleeve faces toward the nose of the paravane, as otherwise the mine moorings, on reaching the sleeve, will catch in the sharp point of the sleeve and fail to enter the cutter. Also make certain that the starboard paravane is on the starboard side and the port paravane is on the port side of the ship.

i. Pass the inhaul rope through the hock in the lifting band on the paravane and secure it to the eye at the back of the cutter head by means of the shackle or double-eyed link provided.

j. Slow the speed of the ship to a maximum of 12 knots, which is the designed speed for launching paravane equipment. However it is safe and easier to carry out these operations at slower speeds and when circumstances permits, a speed of 8 knots is more desirable. The sliding shoe may now be lowered into position by means of the wire uphaul provided, keeping a slight strain on the backhaul ropes to prevent the shoe leaving the stem. Continue to ease away on the uphaul until the shoe is in the towing position, which will be shown by the chain preventer becoming taut.

k. Heave in on the backhaul ropes with the tackle provided until well taut and then make fast.

520. Launching Procedure.

a. When it is known that paravanes are to be launched within a short time, lift the paravanes by means of the booms and lower them over the side to within approximately 4 feet of the water.

b. Secure the inhaul by means of the special Carpenter stopper on deck.

c. Remove the inhaul rope from the winch and fake it on deck, fore and aft, clear for running, when the stopper is released.

d. When the order is received to "Launch paravanes", and when the paravane is pointed towards the bow, trip the stopper by means of the lanyard provided, letting the paravane drop freely into the water, at the same time release the Carpenter stopper on the towrope and continue to slack on the inhaul rope.

e. As the paravane submerges, the inhaul rope, being slacked off, is washed out of the launching hood and then leads direct from the eye of the cutter-head. (It is very important that the inhaul rope is slacked off freely the instant that the paravane reaches the water in order to avoid dangerous stresses in the rope).

f. When the paravane is submerged it will place a strain on the towrope promptly breaking the hemp stopper and putting a strain on the easing-out line. Slack off gradually on the easing-out line until the hock reaches the water, when it should be tripped. The paravane then tows from the bow of the vessel in full operation.

g. Ease out on the inhaul so that it tails off from the paravane in an easy bight.

h. Resume speed.

i. If the paravane has been lowered carelessly, it may dive in toward the ship and cling to the vessel's side. In this case pick up the paravane by the regular method. If no damage has been done to the paravane, start the operation of launching again as per above instructions.

521. Procedure for Taking in Paravanes.

a. The stations are the same as for streaming paravanes.

b. Rig booms and lead inhaul wires through the blocks on the booms to the drums on the winches.

c. When the order is received, "Take in paravanes", heave in roundly on the inhaul rope until the paravanes are up to the boom heads. Care must be exercised when the paravanes are breaking water in order that they will not strike against the ship's sides.

d. Swing in booms and lower the paravanes to the chocks on deck.

e. When the paravane has been taken aboard, ease the strain off the back haul and lift the shoe by means of the uphaul until it is at the head of the stem.

Section 9. Fueling Bill.

522. The purpose of the Fueling Bill is to set up a fueling ship organization, the personnel of which will have a sound knowledge of the Ship's fuel oil piping systems and storage tanks, and who are capable of performing the necessary work with safety and despatch.

523. The Engineer Officer will be in general charge of fueling ship. He will be assisted by a Fueling Detail organized as follows:

(a)	Phones - - - - - -	Forward Engine Room - - -	1 man
		After Engine Room - - - -	1 "
		Topside Hose Connections -	1 "
(b)	Pneumeracators - -	Forward Engine Room - - -	1 "
		After Engine Room - - - -	1 "
(c)	Fuel Oil Manifolds -	Forward Engine Room - - -	2 men
		After Engine Room - - - -	1 man
		Shaft Alley - - - - - - -	1 "
(d)	Sounding Tanks - -	(Fore and Aft) - - - - -	2 men

In addition, messengers will be stationed at the topside hose connection, and the forward pneumeracator.
The Fueling Detail will make the necessary hose connections before manning their assigned stations. Oil spills as a result of leaks or overflows shall be cleaned up by a detail from the "M" Division. All oil hoses shall be drained after fueling and properly racked.

524. The Deck Divisions will assist the Engineer Force as follows:

(a) Handle fenders and lines of barges, and tanker coming alongside.
(b) Clear the side of all booms, gangways or boats interfering with fueling operations.
(c) Provide necessary tackle, canvas, etc., and assist in running out fuel oil hose and wetting down deck, if necessary.
(d) Provide personnel to man fire-fighting equipment.

525. The Engineering Officer shall:

a. Make arrangements for the pumping out of ballast.
b. Inform the Executive Officer and the Officer of the Deck what filling connections will be used.
c. Advise the Executive Officer the probable time of fueling, and the approximate amount of fuel to be received.
d. Have ship's fuel oil tanks sounded before and after fueling. Send a representative to witness sounding source tanks.
e. Maintain communications between the fueling source cut-off valves and manifold stations in the shaft alley and machinery spaces.
f. Notify the Officer of the Deck the time of commencing and completing fueling.
g. Well in advance of the time of fueling, have fuel oil so distributed that some tanks are filled to 95% capacity; the others for receiving the fuel.

526. The Assistant Engineering Officer, under the general direction of the Engineering Officer will:

a. Inspect continuously to see that all safety precautions are carried out.
b. Supervise the connecting and disconnecting of fuel oil hoses.
c. Have sounding of fueling sourse witnessed before and after fueling.
d. Station and supervise personnel in charge of manifold valves in shaft alleys and machinery spaces.
e. Prepare the fueling sheet to include: soundings of tanks, amount and distribution of fuel on board, amount of fuel to be received, which tanks are to receive it, and the order of filling.
f. Fill tanks to 85% by tank gauges before throttling tank filling valves; then "top off", using tank guages.
g. Prevent listing of the ship by throttling necessary manifolds to secure even filling.
h. Have fueling source take back-suction before disconnecting hoses.

527. The First Lieutenant shall:

a. Rig fenders and supervise the handling of mooring lines.
b. Have booms and winches manned if necessary, for handling of fuel oil hose.
c. Lead out wash deck hose in the vicinity of fueling connections.
d. Have ship's draft taken before and after fueling, and reported to the Officer of the Deck in writing.

528. The "E" Division Officer shall provide for the rigging, testing and manning of all interstation telephone communications.

529. The Officer of the Deck shall:

a. Ascertain that safety precautions are observed during fueling. See that no naked lights, smoking, welding, or electrical apparatus liable to spark are permitted within 50 feet of a fuel oil hose, tank or vent.
b. Report the sighting of a fuel oil barge or tanker to responsible officers.
c. Put smoking lamp out during fueling.
d. Display "BAKER" at the foretruck during fueling operations and when the fuel oil barge or tanker is alongside.
e. Log results of fueling and ships' draft before and after fueling.

530. The same procedure shall be followed when receiving Diesel Oil.

531. Lubricating oil will be received under the supervision of the Engineering Officer. Issuance will be made by the Engineering Department upon authorization of the Supply Officer.

Section 10. Fueling at Sea.

532. Fueling at sea is a military operation, which must necessarily be completed in the least possible time, thus reducing to a minimum the period during which the two vessels concerned are vulnerable to attack.
The operation must therefor be conducted in a manner that will permit immediate cessation, and all gear and rigging must be constantly tended.
Fueling is accomplished while the heavier ship tows the other alongside. This is not to be considered a dead weight towing task, but more properly an exercise in position keeping aided by a towline, the towed ship using her engines to make a speed equal to that of the towing ship, so that no strain is taken on the towline which serves mainly as a preventer against sudden surges due to the sea.
For the purpose of this bill, fueling at sea operations may be described under two headings:

(a) FELAND fueling another ship.
(b) FELAND being fueled by an Oiler.

533. General Procedure.

The ship which is to supply the fuel is steadied on course and speed, hoisting "afirm" at the dip on the side to be rigged. When rigged and ready to receive the towed ship, "afirm" is two-blocked.
The towed ship takes station astern and checks the towing vessels compass course and speed. She hoists "afirm" at the dip on the side rigged, and two-blocks, when ready to make her approach. When the stem of the towed ship is abreast the midship point of the towing ship, the tow line is sent over and secured, after which the towed ship decreases her speed, a few turns at a time to the established standard while maintaining a course parallel to the towing ship at a distance of sixty to eighty feet. The length of the towline is adjusted as necessary by the towing ship. Upon order of the receiving ship the fuel oil hose is taken aboard and coupled up and when connections are secure, pumping is begun. When all is steadied down, transfers may be made of stores, etc.

When the FELAND is to fuel another ship at sea the gear and procedure will be as follows:

534. Towline.
The towline consists of 120 fathoms of 8" manila line (14" line is available for heavy ships) run out through the bow chocks with the inboard end leading aft to the anchor windlass drum. After taking three or four turns around the drum, the line is forward, to the bitts at Frame #6 as a preventer.
The towline is stoppered to the rail, outboard and clear, with light manila lashing, and three retrieving lines are made fast at regular intervals (approximately thirty feet) in order to expedite rerigging at the conclusion of fueling.

535. Spring Line.
In fueling lisht ships, an 8" manila spring line may be used, if desirable to prevent the towed vessel from shearing out and endangering the oil hose. This line is run out through the chocks at Frame #45 to a point on the bow of the towed ship and should always be passed over the towline.

536. Fuel Oil Hose Rig.
The Fuel Oil hose rig consists of four or five 30 foot lengths of 4" flexible hose suspended by two saddles from a cargo boom at #5 Hatch and connected to the fuel outlet at Frame #143. The forward booms and forward fueling stations may also be used if necessary. The connection to the deck outlet is made by means of a quick-release coupling and the hose is run with sufficient slack up to the inboard saddle. From this point it drops in a bight and up once more to the outboard saddle. The outer end of the hose is suspended from the boom head by an easing out line. When passing the hose, the end is slacked away as the receiving ship pulls in by means of a hose line previously passed to her. The outboard saddle is lowered as necessary, using the whip on the boom.

The following manila lines are used in connection with the hose rig:

(a) "Hose Line" - Attached to the hose about six feet from the outer end and passed to the receiving ship by means of a heaving line.
(b) "Easing Out Line" - Attached to the hose a few feet inboard of the hose line and retained aboard.
(c) "Saddle Falls" - Attached to the inboard Saddle and retained aboard.

537. Messengers
The towline messengers will consist of 25 fathoms of 21 thread bent on to 40 fathoms of 4" line. All messengers shall be spliced to permit running through blocks. All lines are made up free for running.

538. Preparation
Ordinarily, three hours notice will be given of intentions to fuel, during which time the necessary preparations will be made as follows:

(a) The towline is taken to the windlass drum, led out through the bow chock, and stoppered to the life lines. Messengers and retrieving lines are bent on and faked out on deck.
(b) The Spring line is laid out ready for use, if required.
(c) The oil hose sections are connected and hung on the boom with heaving lines and messengers made up on deck free for running.
(d) The provision whip is rigged ready for use.
(e) The following gear shall be provided:
    (1) Sound power phones and sufficient cable to connect the two ship's fueling stations.
    (2) Distance line.
    (3) Line-throwing guns with spare spindles and cartridges.

When the FELAND is to be fueled from a larger vessel the following notes will apply:

539. Receiving the Towline.
A snatch block is hung from the padeye inboard of the top of the ladder leading down to Deck 01 at Frame #52, with a fair lead athwartships to a similar block on the opposite side. Upon receiving the towline messenger aboard, it is reeved through these blocks and carried forward on deck to allow running away with the line or heaving round on the cargo winch drum.

540. Towing Bitts.
The towline is brought aboard and secured to the bitts on Deck 01, Frame #45. Chafing gear must be set over the deck coaming outboard of the bitts to protect the towline.

541. Distance Line.
As soon as possible after the towline is secured, the towed ship passes over a heaving line marked with large strips of bunting to show distances from the towing ship as follows:

50 ft., red; 60 ft., yellow; 70 ft., blue; 80 ft., white; 90 ft., blue; 100 ft., yellow; 110 ft., red. It must be located well forward and in clear view of the conning officers of both ships. The end (zero feet) is secured at the rail of the towing ship and the towed ship tends the line, keeping it taut from a point directly opposite the secured end of the line when the ships are in position.

542. Receiving the Hose.
The hose line from the towing ship is reeved through a snatch block at the kingpost above the fueling connections and the end of the hose hauled up on deck for connecting.

543. Preparations.
Before approaching the towing vessel the following preparations shall be made:

(a) Rig blocks for towline messengers, hose lines and provision whip.
(b) Strike down life lines and stanchions.
(c) Provide chafing gear at deck coaming.
(d) Mark fueling stations with red bunting.
(e) Empty oil tanks that can be filled in the shortest time by topping off all other tanks.
(f) Provide wrenches and spanners for securing hose.
(g) Provide distance line.

544. Division Responsibility.

The Engineering fueling detail will be manned as noted in Section 9 of this chapter under Fueling Bill and will have the following duties:

(a) Prepare fuel tanks, valves and pumps for oil transfer.
(b) Establish communications between the weather deck fuel connections, the Engine Rooms, the Bridge and the fueling station on the other ship.
(c) Break out hose and make the connections to the deck fuel outlet; clean and restow hose after completion of fueling.
(d) Notify the O.O.D as to the time of beginning and completion of fueling and the amount of fuel transferred.
(e) Clean up oil spills on deck and sides .

The First Division will be responsible for rigging, handling and tending messengers, towlines, spring line and distance lines and other gear in the forward part of the ship.
When fueling is done at the after station the Second Division will be responsible for rigging the booms, lines and the connection of hose sections as required for the oil hose rig. The provision whip will be rigged by men detailed by the Boat Division. Alert and intelligent seamen will be detailed to tend all lines continually while ships are in process of fueling and the most experienced helmsman available will be stationed at the wheel.
Storekeepers and the Mail P.O. will stand by to provide or receive provisions, stores, mail, etc., as necessary.

Section 11. Boat Bill.

545. The purpose of the Boat Bill is to provide information and regulations by which the functions of the Boat Division may be governed during periods when the ship in not engaged in landing attack operations.

546. Boats and Davits.

The normal complement of boats on the FELAND and their stowage is as follows:

(a) 1 - LCP(L) - (Captain's Gig)
1 - LCP(R) - (Salvage Boat) - Stowed in skids thwartships on #2 Hatch.

(b) 12 - LCV(P)'s - Stowed in four (4) Welin Triple Davits, port and starboard on Deck 02, Frames #65 to #95. Davits are numbered from #1 to #4 from forward, aft - odd number to starboard.

(c) 2 - LCV(P)'s - (Smoke Boats) - Stowed in skids fore and aft on Main Deck, port and starboard, Frame #130 to #145.

Note: These boats may be stowed, as an alternative, in skids set fore and aft on #5 Hatch.

547. Boat Organization.
The Twelve LCV(P)'s normally stowed in the davits are organized into four divisions of three boats, formed as follows:

(a)	"ABLE" Div.	Boats #1 - #3 - #5.
(b)	"BAKER" Div.	Boats #2 - #4 - #6.
(c)	"CHARLIE" Div.	Boats #7 - #9 - #11.
(d)	"DOG" Div.	Boats #8 - #10 - #12.

Each division will be under the direct supervision of a Boat Division Officer and will be operated and trained as a unit when operational circumstances permit.

548. Boat Division Officers'.
The four Junior Boat Division Officers' will be permanently assigned to boat divisions and davits as follows:

(a) Davit #1, "ABLE" Div., plus Captain's Gig.
(b) Davit #2, "BAKER" Div., plus Boat #16 (Salvage Boat).
(c) Davit #3, "CHARLIE" Div., plus Boat #13 (Smoke Boat).
(d) Davit #4, "DOG" Div., plus Boat #14 (Smoke Boat).

Boat Officers shall be directly responsible for the appearance, cleanliness, maintenance and operational readiness of boats in their boat divisions as well as the training and discipline of the boat crews. They shall be under the supervision of the Boat Division Officer who will exercise overall control. All routine material checks and reports shall be handled on a divisional basis.

549. Training.

In order to preserve the boat crew as a well organized team, boat crews (Coxswain, Engineer and Bow Hook) will be permanently assigned to specific boats.

The Boat Group Commander and the Boat Division Officers' will carry out a continuous boat crew training program in the following subjects: (a) Seamanship and Piloting; (b) Boat Handling and Tactical Maneuvering; (c) Hull and Engine Maintenance; (d) Communications; (e) Boat Ordnance and Small Arms; (f) First Aid.

550. Maintenance.

In addition to the regularly assigned boat engineers a Chief Motor Machinist's Mate and two Motor Machinist's Mates from the Boat Division will be assigned to regular duty in the Boat Repair Shop. Electrical repairs and inspections will be accomplished by men detailed by the "E" Division. In addition, Carpenter's Mates and Shipfitters will be assigned by the "R" Division to work on the boats as required on a priority basis.

551. Boat Repair Shop & Spare Parts Stowage.

The Boat Repair Shop is located on the port side of the Main Deck at Frame #12' to #127.

It contains equipment and tools for repairing and overhauling boat engines. One complete replacement engine is carried in the shop. Boat spares, including propellors shafts, etc., are carried in the stowage locker Deck 2, Frame #159.

552. Inspections and Checks.

Coxswains shall be furnished with check lists based on Chapter XI of the Transport Doctrine and shall be held accountable for making the required checks and promptly reporting all necessary repairs.

In addition, Casualty Report Forms will be furnished boat coxswains to be filled out at the end of each run.

553. Equipment.

It shall be the responsibility of each boat coxswain to see that the complete prescribed equipment is carried in the boat at all times and in a serviceable condition. The list of equipment as follows:

1 - 30 lb Danforth Anchor.
1 - 3" anchor line (30 fathoms)
2 - Davit hoisting slings.
1 - Hook hoisting sling.
1 - CO_2 Fire Extinguisher (15 lb)
1 - Water breaker (5 gal).
1 - 4 lb grapnel (with 15 fathoms of line)
1 - Emergency Tiller.
1 - Battle Lantern.
1 - 3" Bowline (3 fathoms)
1 - 3" Sternline (3 fathoms)
1 - 3" Towing line (8 fathoms)
39 - Kapok Life Jackets
2 - Life buoys
2 - Boat buckets
10 - Fenders
2 - 8 ft. Boat Hooks.
1 - Fuel Tank Sounding Rod.
1 - Answering Pennant.
1 - Magnetic Compass (fixed).
2 - 6 Volt Batteries.
1 - Can Lubricating Oil (5 gal., SAE 30)
1 - Swab
1 - Set of Semaphore Flags.
1 - Spare Ramp Cable.
1 - Medical Kit.

In addition to the above, tools, lubricants, spare parts, lights, rations, water, etc., as required.

554. Duty Boats.
Each of the four boat divisions shall be assigned to a liberty section, so that, when in port, a complete boat division has the duty section in daily rotation.
One boat crew will be designated as the Duty Boat Crew during daylight hours, with the other two crews as second and third standbys, with a similar arrangement after sunset.
When authorized boat runs are to be made the boat crews are called away in the order assigned.

555. While in port, the Executive Officer will list in the Morning Orders all required special boat trips for the following day and The Senior Watch Officer will assign a running boat schedule. All special request for boats will be made through the Executive Officer or Officer with the Department Head day's duty.

556. Numbering of Boats.
All boats shall be numbered serially with the exception of the gig, which is designated by a horizontal arrow through the ship's identification number.
The remaining boats are numbered as follows: PA11-1, PA11-2, etc. The numbers shall be 8" high, block type, with 2" width of stripe and shall be painted in the following positions:

(a) On each side of the bow.
(b) Across the stern.
(c) On the forward face of the ramp shutter.
(d) On top of the engine housing.

Section 12. Darken Ship Bill.

557. The purpose of darkening ship is to prevent its location from being revealed by lights. From "Darken Ship" until "Light Ship" in the morning, no lighted matches, cigarettes, flashlights or any other lights shall be displayed where they can be seen from outside the ship. All doors and airports from lighted compartments to the outside, except those specially fitted for darken ship, shall be closed during darken ship.

558. The smoking lamp is out at all times on the weather decks or other exposed positions whenever the ship is darkened.

559. When the word, "Darken Ship" is passed, all lighting circuits (except the battle circuits), not required for the safe operation of the ship, will be opened under the supervision of the Engineering Officer of the Watch.

560. All lights on the battle circuits on the main deck and above shall be fitted with red filter shield or red steamtight globes. Whenever possible gun and instrument lights which can be seen outside the ship shall be fitted with a red "Plexiglass" or similar material filter.

561. Running lights shall be kept ready to be turned on in case of emergency. However, they shall be so dimmed that if the necessity of using them arises, they shall not be visible for more than two miles in clear weather.

562. The movements of the Senior Officer present, shall be followed in darkening and lighting ship, otherwise the Commanding Officer will set the times. The Navigator shall inform the Officer of the Deck of the time set for darkening and lighting ship.

563. The ship's general announcing system, bugles, or ship's bell will not be used while the ship is darkened except in an emergency.

564. Any person who sees an unauthorized light showing outside the ship shall take immediate steps to see that it is extinguished. Positive action shall be taken against persons who carelessly expose lights where they can be seen from outside the ship and the circumstances reported to the Officer of the Deck.

565. Night signal apparatus and searchlights will not be used during darken ship, except as directed by the Commanding Officer.

Section 12. Darken Ship

97. The purpose of darkening ship is to prevent its location from being revealed by lights. From "Darken Ship" until "Lights out" in the morning, no lighted matches, cigarettes, flashlights or any other lights shall be displayed where they can be seen from outside the ship. All doors and airports from lighted compartments to the outside, except those specially fitted for darken ship, must be closed during darken ship.

98. The smoking lamp is out at all times on the weather decks or other exposed positions whenever the ship is darkened.

99. When the word "Darken Ship" is passed, all lighting circuits (except the battle circuits), not required for the safe operation of the ship, will be opened under the supervision of the Main Spring Officer of the Watch.

100. All lights on the battle circuits on the main deck and above shall be fitted with red filter shields or red electric lights. However, portable gun and instrument lights which can be easily outside the ship, shall be fitted with a red cellulose or similar modern filter.

101. Running lights shall be kept ready to be turned on in case of emergency. However, they shall be so dimmed that it is impossible for them to be seen, they shall not be used for navigation unless the ship is in clear weather.

102. The movements of the Senior Officer present, shall be followed in darkening and lighting ship. Otherwise the Commanding Officer will set the times. The Navigator shall inform the Officer of the Deck of the time set for darkening and lighting ship.

103. The ship's general announcing system, bugles, or ship's bell will not be used while the ship is darkened except in an emergency.

104. Any person who does no recognize a light showing outside the ship, shall take immediate steps to see that it is extinguished. Positive action shall be taken against persons who carelessly expose lights where they can be seen from outside the ship and the offenders reported to the Officer of the Deck.

105. High edges, gangways and ventilation will not be used during darken ship, except as thrown by the Quartermaster.

Section 13. Sanitary Bill.

566. The Medical Officer shall advise the Commanding Officer on matters of hygiene and sanitation of the ship. He shall make frequent inspections of the ship's living, messing and commissary spaces. He shall concern himself with all actions, practices, and conditions which affect the sanitary conditions of the ship and the health of the crew.

567. Drinking Water.

Sufficient materials will be maintained aboard to chlorinate an amount of water equal to three times the potable fresh water capacity of the ship.
Potable drinking water will not be distilled in polluted harbors. When distilling potable water in port the water should be tested for bacteria by the Medical Department before it is released for ship's use. There should be no question as to the quality of the water, and no hesitancy in chlorinating potable water as a further safeguard.

568. Drinking Facilities.

a. The use of the common drinking cup is prohibited. This applies to the Coffee Cup.

b. Scuttlebutts should be kept scrupulously clean and used for drinking purposes only. Under no circumstances shall any man drink from a spigot.

569. Living Spaces, Heads & Washrooms, will be inspected frequently by Medical Department personnel. Recommendations concerning lighting, ventilation, cleanliness and vermin eradication will be made to the Commanding Officer. Bedding should be aired and linen changed weekly.
All living spaces and heads shall be thoroughly swabbed each day. All trash and spit-kits shall be emptied at "turn to" and as often as necessary during the day. Swabs shall be kept in division racks on weather decks. No swabs are to be left in below deck spaces.

570. Ship's Service Spaces. Personnel with skin and scalp irritations and eruptions will not be furnished barber service. Such cases should be referred to a Medical Officer. All barber tools will be sterilized in a Formalin container before each use. The Barber should be inspected as food handlers.

Soda Fountain and Ship's Store should be regularly inspected for cleanliness and general sanitary conditions. Personnel dispensing ice cream, sandwiches, etc., should be instructed in sanitary measures.

Section 3 - Sanitary Facilities

366. The Medical Officer shall advise the Commanding Officer on matters of hygiene and sanitation of the ship. He shall make frequent inspections of the ship's living, messing and sanitary spaces. He shall concern himself with all sanitary conditions and conditions which affect the sanitary conditions of the ship and the health of the crew.

367. Potable Water.

Sufficient materials will be maintained aboard to chlorinate an amount of water equal to three times the potable fresh water capacity of the ship.

Potable drinking water will not be distilled in a little more than distilling plants working, and the water should be tested for bacteria by the Medical Department before it is released for ship's use. There should be no question as to the purity of the water, nor no hesitancy in chlorinating potable water as a due self-proof.

368. Drinking Fountains.

a. The use of the common drinking cup is prohibited. This applies to the Cup on Ship.

b. Sanitarily made and be kept sparkingly clean and used for drinking purposes only. Under no circumstances shall men drink from a bubbler.

369. Living Spaces, Heads & Washrooms. will be inspected frequently by Medical Department personnel. Sanitary conditions, lighting, ventilation, illumination and vermin sanitation will be made to the Commanding Officer. Bedding should be aired and linen changed weekly.

All living spaces and heads shall be thoroughly washed with soap. All trash and substitute shall be emptied at "dawn to" and as often as necessary during the day. Spots shall be kept in sanitary condition on weather decks. No spaces are to be left in the deck spaces.

370. Ship's Barber Shop. Fitted with sinks and hot and cold water and shall be provided with a hot water heater. The barber should be referred to a Medical Officer. All barber tools should be sterilized in a prescribed manner after each use. The barber should be clothed as good barbers.

371. Garbage and Other Waste. Should be properly disposed of in a sanitary manner. Garbage, dirty paper, rags, etc., should be disposed of in a sanitary manner.

571. Food and its Preparation.

a. All food should be carefully inspected, since a small quantity of spoiled food admixed with good food may contaminate the latter.

b. All fresh provisions delivered aboard will be inspected by a member of the Medical Department and all foods not fit for consumption, rejected.

c. All pork and pork products must be thoroughly cooked.

d. Ground or cut-up meat should be refrigerated in shallow containers to insure penetration of refrigeration.

e. All food should be prepared as near the time of consumption as possible in order to prevent deterioration in hot climates, such foods as deviled eggs, egg sandwiches, cream pastry, sea food, etc., deteriorate rapidly.

572. Food Handlers.

a. All food handlers will be inspected before being assigned such duty and weekly thereafter.

b. Personnel suffering from contagious or active venereal diseases and pyogenic infections (especially of hands and nails) will be debarred from assignment as food handlers and scullery men.

c. The washing and drying of personal linen in galleys, sculleries or adjacent spaces shall be prohibited.

d. Included in the list of food handlers are the following: All mess cooks, Stewards and Stewards Mates, Cooks, Ship's Cooks, Bakers, Butchers, and Ship's Servicemen.

573. Messing Compartments.

a. All messing spaces shall be left scrupulously clean after each meal, and sprayed with insecticide at regular intervals.

b. In using spray insecticide particular attention shall be paid to spaces around pipes and wiring on the overhead, corners, crevices and other areas furnishing possible refuge for cockroaches. These and adjacent spaces shall be sprayed simultaneously under the supervision of the Master-at-Arms.

c. Crevices in mess tables shall be sealed. The tables shall be scrubbed with soap and hot water and all food particles and grease removed after each meal, leaving them immaculately clean.

[illegible]

[illegible]

[illegible]

574. Galley, Scullery and Mess Gear.

a. Medical Department personnel will make frequent inspections of galleys, refrigerators, scullery and food storage areas and the Commanding Officer advised concerning cleanliness and sanitary conditions.

b. Individual mess gear will be stowed in the stowage racks provided for the purpose.

c. The scullery sterilizers shall be governed by the following regulations:-

(1) Water used in tanks shall be kept at a minimum temperature of 180° F. Steam lines supplying these tanks should be large enough to maintain this temperature during operation. The minimum safe sterilization requirement is submersion in water at a temperature above 180° F for not less than one minute.

(2) Scullery sterilizers shall be operated under the supervision of the Master-at-Arms force, who shall make frequent inspections to see that the sterilizer is operating efficiently.

(3) Mess gear removed from sterilizer shall be inspected carefully and if not satisfactorily cleaned should be run through again.

d. No loitering shall be permitted in the scullery or galley area. After sterilization, mess gear shall be handled as little as possible prior to use. It shall not be wiped with dish towels after sterilization.

e. All equipment in sculleries shall be left clean and free of grease after use. Daily spraying shall be done under sinks and in corners, in such a manner that the insecticide will not come in contact with the mess gear.

Section 14. Air Bedding Bill.

575. Ordinarily bedding will be aired at 0815, weather permitting, on Thursdays, and will be piped down at 1250. Men having the afternoon watch will stow their bedding below at 1130. Orders for the day will specify whether or not bedding is to be aired.

576. Bedding will be stopped on the rail without spacing. In airing bedding, the mattress cover shall be removed, sent to the laundry or folded neatly over the mattress, over which the blankets shall be folded. Bunk straps shall be used to secure bedding to the rail. Pillows, if used, shall be secured by the bunk straps on the inboard side of the mattress.

577. At 0815 on days which bedding is aired, the Chief Master-at-Arms will inspect the crew's living compartments and turn over to the Executive Officer the names of personnel who have failed to air bedding. He will inspect to see all bedding is piped down promptly.

578. The Medical Officer will conduct sanitary inspection of bunk frames, springs, and bedding, while bedding is being aired, and report conditions found to the Executive Officer.

579. Division Officers will inspect aired bedding for proper marking, completeness, and cleanliness and bunk frames for material condition and cleanliness. They will take immediate steps to correct deficiencies.

580. To avoid congestion, Ship's Officers, Troop Officers' and Sick Bay mattresses will usually be aired separately, at times specified in Orders for the day. These mattresses must not be folded and to avoid injury in handling, two men will carry one mattress between them.
The "S" Division will air Officers' bedding as directed by the Mess Treasurer.
The "H" Division will air such parts of Sick Bay bedding as the Medical Officer may direct.

RESTRICTED

Section 3A. Air Bedding Bill.

575. Ordinarily bedding will be aired at 0815, weather permitting, on three days, and will be piped down at 1230. Men having the afternoon watch will stow their bedding before 1130. Orders for the day will specify whether or not bedding is to be aired.

576. Bedding will be stowed on the rail without spacing. In stowing bedding, the mattress cover shall be removed, sent to the laundry or folded neatly over the mattress, over which the blanket shall be folded. Bunk straps shall be used to secure bedding to the rail. Pillows, if used, shall be secured by the bunk straps on the inboard side of the bunk.

577. At 0815 on days when bedding is aired, the Chief Boatswain's Mate will inspect the area's living compartments and turn over to the Executive Officer the names of personnel who have failed to air bedding. He will inspect to see all bedding is piped down promptly.

578. The Medical Officer will conduct sanitary inspections of bunks, frames, springs, and bedding, while bedding is being aired, and report conditions found to the Executive Officer.

579. Division Officers will inspect aired bedding for proper marking, cleanliness, and cleanliness and tank frame for unsanitary condition and cleanliness. They will take immediate steps to correct deficiencies.

580. To avoid congestion, Ship's Officers, Troop Officers and Sick Bay attendees will usually be aired separately, at times specified in Orders for the day. These activities must not be lines and to avoid injury in handling, two men will carry one mattress between them.

The "S" Division will air Officers' bedding as directed by the Mess Treasurer.

The "M" Division will air such parts of Sick Bay bedding as the Medical Officer may direct.

CHAPTER VI

ADMINISTRATIVE REGULATIONS

Section 1. Daily Routine (Port - Sea)

581. The Daily Routine in Port

Daylight	Extinguish all unnecessary lights.
Sunrise	Turn off masthead anchor, gangway, absentee, and guard lights, following motions of S.O.P. Hoist guard flag and absentee pennant as required. Secure from darken ship.
0530	Call Masters-at-Arms, Bos'n Mates with duty and Messmen.
0545	Call Division Police Petty Officers.
0600	Reveille, or as designated.
0630	Breakafast for Troops. Turn to Sweepers; empty all trash containers. If alongside dock sweep down dock abreast of the ship. Clean and fuel boats in the water. Open watertight doors closed for the night. Carry out orders for the day. Set uniform of the day.
0645	Muster prisoners at large and restricted men. Mess Gear. Time and uniform signals. Report any change in uniform to Commanding and Executive Officers. Inform Chief Master-at-Arms and Stewards of all mess changes.
0700	Breakfast for Crew. Up all hammocks.
0740	Size of Colors Signal.
0755	First call to colors.
0758	O.O.D. make 8 o'clock report to the Commanding Officer.
0800	Colors.
0805	Quarters for muster. Personnel inspection by Division Officers
0830	Sick Call. Division Officers inspect living compartments.

0930	Daily inspection of troop living compartments by First Lieutenant, Transport Quartermaster, and Troop Officers.
0945	Guard Mail Trip.
1045	Captain's Mast, when held. Inspection of Messmen by Master-at-Arms.
1130	Knock off work; pipe sweeper. O.O.D. sample rations. Dinner for Troops.
1145	Mess Gear. Quartermaster reports "Chronometers Wound."
1158	Report magazine temperatures and chronometers wound to the Commanding Officer.
1200	Dinner for crew.
1300	Turn to.
1345	Gueard Mail Trip.
1630	Supper for Troops. Knock off routine work. Sweep down. Empty trash containers. Turn to extra duty men.
1645	Gueard Mail Trip. Mess Gear.
1700	Supper for crew. Close watertight doors as required and report when closed to the First Lieutenant and Executive Officer. Hoist unnecessary boats.
15 min. before Sunset.	Test anchor lights, all signal apparatus and report to O.O.D. Prepare to darken ship. Test running lights.
5 min. before Sunset.	First call to colors.
Sunset	Colors. Station security sentries. Turn on anchor lights, guard and absentee lights if required. Haul down absentee pennants. Partially darken ship if ordered. Cover guns and searchlights.
1900	Muster anchor watch. Muster prisoners at large and restricted men. Rig for movies. All galley fires and lights out.
1920	Executive Officer (Duty Officer) receives 8 o'clock reports.
1930	Movies.

1958	O.O.D. makes 8 o'clock reports to Commanding Officer.
2000	Executive Officer makes 2000 report to Commanding Officer.
2055 (or 5 min.after movies)	First call. Sweep down and unrig movies.
2100 (or 10 min. after movies)	Tattoo, set anchor watch. Smoking lamp is out in berthing compartments. Extinguish all but standing lights in crew's berthing spaces.
2105 (or 15 min. after movies)	Taps.
2200	10 o'clock lights out. Master-at-Arms reports. O.O.D. reports 10 o'clock lights to the Commanding Officer.
2300	Hourly inspection by security watch until 0530.

582. The Daily Routine at Sea.

0000	Sounding Security Watch reports to O.O.D. Report repeated hourly until reveille.
0330	Call the watch.
0345	Relieve the watch
0400	Call cooks and bakers having duty.
Sunrise	Extinguish unnecessary lights. Secure from "Darken ship".
0530	Call duty Master-at-Arms.and Messmen.
0545	Call Division Police Petty Officers.
0600	Reveille.
0630	Breakfast for troops. Turn to. Sweep down decks. Carry out plan of the day.
0700	Breakfast for crew. Time signal.
0715	Relieve the watch.
0758	Report eight o'clock to Commanding Officer.
0800	Quarters for Muster or Muster on Stations as directed. Signal latitude and longitude when so directed by O.T.C.

[illegible]

1958	C.O.D. makes 6 o'clock reports to Commanding Officer.
2000	Executive Officer makes 2000 report to Commanding Officer.
2005 (or 5 min.after movies)	First call. Speed down and unrig movies.
2100 (or 10 min. after movies)	Taps. Set anchor watch. Smoking lamp is out in berthing compartments. Extinguish all but standing lights in crew's berthing spaces.
2105 (or 15 min. after movies)	Taps.
2200	10 o'clock lights out. Master-at-Arms reports. C.O.D. reports 10 o'clock lights to the Commanding Officer.
2300	Hourly inspection by security watch until 0530.

382. <u>The Daily Routine at Sea.</u>

0000	Incoming Security Watch reports to O.O.D. Report repeated hourly until revoltis.
0030	Call the watch.
0045	Relieve the watch
0500	Call decks and bakers having duty.
Sunrise	Extinguish unnecessary lights. Secure from "Darken ship".
0530	Call duty Master-at-Arms, and Messmen.
0545	Call Duty Petty Officers.
0600	Reveille.
0630	Breakfast for officers. Turn to. Sweep down decks. Daily out plan of the day.
0700	Breakfast for crew. Time at rest.
0715	Relieve the watch.
0730	Report clear o'clock to Commanding Officer.
0800	Start at the Station or Buoy or Station on Airway. Report latitude and longitude when so directed by O.O.D.

0830	Sick Call. Division and Troop Officers inspect their parts of the ship, particularly living spaces and passageways.
0930	Daily inspection of troop living compartments by First Lieutenant, Transport Quartermaster, and representative of troop Commander.
1045	Daily inspection of messmen by Master-at-Arms.
1130	Knock off work; sweepdown, O.O.D. samples rations. Dinner for troops.
1145	Mess Gear. Quartermaster reports "Chronometers Wound".
1158	Report Twelve o'clock, chronometers wound, and magazine temperature to the Commanding Officer.
1200	Dinner for crew. Signal Fuel and Position reports to O.T.C.
1215	Relieve the watch.
1300	Turn to; sweepdown.
1545	Relieve the watch.
1630	Sweepdown; supper for troops.
1645	Mess Gear.
1700	Supper for crew.
1715	Relieve the Watch.
30 min. before Sunset.	Boatswain inspect boat and other stowages. Test running lights and recognition lights.
15 min. before Sunset.	Make preparations to darken ship.
Sunset	"Darken Ship".
15 min. after Sunset.	Master-at-Arms reports on Darken Ship to O.O.D.
1 hr. after Sunset.	Dump all trash and garbage.
1920	Executive Officer receives security reports from Heads of Departments.

[illegible]

0800 Mess Call. Division and Troop officers inspect their parts of the ship, particularly living spaces and passageways.

0930 Daily inspection of troop living compartments by Plans Lieutenant, Transport Quartermaster, and representative of Troop Commander.

1045 Daily inspection of messes by Master-at-Arms.

1130 Knock off work; sweepdown, C.O.D. supplies rations. Dinner for troops.

1145 Mess Gear. Quartermaster reports "Quartermaster Mess".

1155 Reports Twelve o'clock, chronometers wound, and ship's time temperature to the Commanding Officer.

1200 Dinner for crew. Signal Fall and Position reports to C.I.C.

1215 Relieve the watch.

1230 Turn to; sweepdown.

1245 Relieve the watch.

1530 Sweepdown; muster for inspection.

1545 Mess Gear.

1700 Supper for crew.

1715 Relieve the Watch.

30 minutes- Boatswain lowered boat and other stowages. Test Navs Sunset-running lights and red-illuminated lights.

15 minutes- Make preparations to darken ship. Fire Sunset.

Sunset "Darken Ship".

15 min. after Sunset. Master-at-Arms reports on Darken Ship to O.O.D.

1 hr. after Sunset. Drop all trash and garbage.

1920 Executive Officer receives security reports from Heads of Departments.

1945	Relieve the Watch. Master-at-Arms makes 8 o'clock report to O.O.D.
1958	Officer of the Deck makes 8 o'clock report to the Commanding Officer.
2000	O.O.D. receives first hourly security report.
2100	Pipe down, smoking lamp is out in berthing compartments. Turn out all but standing lights in berthing spaces.
2200	Report 2200 lights to Commanding Officer.
2330	Call the watch.
2345	Relieve the watch.

583. A copy of the daily routine at sea and in port will be posted on the bridge and quarterdeck.

Notes on Daily Routine.

584. Heads of Departments shall establish routine schedules for inspections and tests of spaces, material, and equipment under their cognizance as required by U.S. Navy Regulations, Bureau Manuals, etc. These schedules shall be posted where they may be readily acessible to all concerned, and Heads of Departments shall check on their accomplishment.

585. It is the responsibility of the Officer of the Deck to ascertain that all stations of the deck watch are manned properly, the the personnel of the watch are fully conversant with their duties; that reports are made promptly, accurately, and in the correct nautical phraseology.

586. To insure accuracy of reports, the Officer of the Deck will, if necessary, reduce them to writing, and forward them by messenger.

EVENING

1945 Relieves the Watch. Boatswain-Mate makes 8 o'clock report to Officer.

1955 Officer of the Deck makes 8 o'clock report to the Commanding Officer.

2000 O.O.D. receives first hourly security report.

2100 Pipe down, smoking lamp is out in berthing compartments. Turn out all but standing lights in berthing spaces.

2200 Report 2200 lights to Commanding Officer.

2230 Call the watch.

2245 Relieve the watch.

[illegible]. A copy of the daily routine as set up for port will be posted on the bridge and quarter-deck.

Rules on Daily Routine.

[illegible]. Heads of Departments shall establish routine schedules for inspections and tests of spaces, material, and equipment under their cognizance as required by U.S. Navy Regulations, Bureau Manuals, etc. These schedules shall be posted where they may be readily accessible to all concerned, and copies of Departmental duty sheet in their access listbook.

[illegible]. It is the responsibility of the Officer of the Deck to ascertain that all stations of the deck watch are manned properly, the personnel of the watch are fully conversant with their duties, that reports are made promptly, accurately, and in the correct manner; therefore,

[illegible]. To insure accuracy of reports, the Officer of the Deck will, if necessary, review them in writing, and forward them by messenger.

Section 2. Weekly, Monthly and Quarterly Routine.

587. Weekly Routine.

Mondays
Inspect, clean and overhaul gaskets, knife edges, and dogs on all doors and hatches. Clean and overhaul all airport lenses, frames, gaskets and dogs. Clean wind scoops and inspect screens. Division instruction and drill.

Tuesdays.
General Drills.
Inspection of food handlers by Medical Officer.
Division instruction and drill.

Wednesdays
Clean and restow all lockers.
Inspect, grease and oil all blocks on weather decks.
Division instruction and drill.

Thursdays
Field day below decks.
Air Bedding.
Sanitary inspection of ship by First Lieutenant and Medical Officer.
Division instruction and drill.

Fridays
Field Day upper decks, troop and crew living compartments and offices.
Scrub decks.
Clean - grease and oil all winches, capstan and anchor engines.
Captain's below deck inspection.
Division instruction and drill.
Lay out and wash deck hose.

Saturdays
Captain's personnel and ship inspection.

Sundays
Divine Services.

NOTE: 1. The weekly routine will in general be covered by the Plan of the Day, except the Medical Examinations, Locker and Clothing Inspections, and Air Bedding. In case circumstances preclude the conduct of a scheduled Medical Examination, the Medical Officer will conduct it the following day. Division Officers are responsible for conducting a weekly Locker and Clothing Inspection. The Officer of the Deck is responsible for airing bedding.

2. The following subjects will be covered in the afternoon period assigned for divisional instructions; Damage Control, Gas Defense, Seamanship, Customs of the Service, Aircraft Recognition, Hygiene and First Aid, Signals, Rules of the Road and amphibious landing attack technique.

3. Visual signal crews will be exercised daily (except Saturdays, Sundays and holidays), hourly exercise in accordance with existing instructions.

4. Exercise radio crew and hold Instruction Period on week days.

588. Weekly Routines Will Include:

Collision Drill.
Ship Salvage and Rescue Drill.
Abandon Ship Drill (when troops are aboard).
Man Overboard Drill.
Fire Drill.
Emergency Steering Drill.

589. Monthly Routine

Publish Articles for the Government of the Navy. (Division Officers will carry this out at appropriate times, usually on a Saturday morning during Captain's Inspection).

590. Quarterly Routine.

Decontamination Drill.
Exercise Diving Personnel.
Instruct Personnel in Use of All Small Arms.

RESTRICTED

2. The following subjects will be covered in the afternoon period assigned for material instruction; Damage Control, Gas Defense, Seamanship, Customs of the Service, Aircraft Recognition, Hygiene and First Aid, Signals, Rules of the Road and amphibious landing attack techniques.

3. Visual signal crews will be exercised daily (except Saturday, Sunday and holidays), hourly exercise in accordance with existing instructions.

4. Exercise radio crew and hold Instruction Period on week days.

[illegible]. Weekly Routine Will Include:

Collision Drill.
Ship Salvage and Rescue Drill.
Fire Drill (when hoses are abeam).
Man Overboard Drill.
Fire Drill.
Emergency Steering Drill.

[illegible]. Monthly Routine

Publish Articles for the Government of the Navy. (Division officers will carry this out at appropriate times, usually on a Saturday morning during Captain's Inspection).

[illegible]. Quarterly Routine.

Decontamination Drill.
Exercise Divisional Personnel.
Instruct Personnel in Use of All Small Arms.

Section 3. Hull Inspections and Records.

591. In accordance with Article 1359, U.S. Navy Regulations, 1920, the Commanding Officer shall appoint a Hull Board consisting of three officers, one of whom shall be an officer of the engineering department, for the purpose of examining and reporting on the condition of the ship semi-annually. The interval between two successive inspections shall not exceed six months.

592. Reports of semi-annual or other inspections will be completed within 5 days following the end of the period covered.

593. The board shall examine and report upon the ship's condition especially as to deterioration of the inner bottom and vertical bulkheads of boiler compartments, corrosion at the water line and of the under-water exterior of the ship. The board shall also examine and report upon the superstructure, inner hull, accessible tanks and double bottoms at some time during the six (6) months period, the interval between two successive inspections to be not more than eight (8) months. The board shall also report upon the efficiency of all construction and repair pumps and auxiliaries within the ship, after requiring them to be tested, and upon the condition of masts and rigging.

594. Heads of Departments are responsible for conduct of inspections and maintaining required records of compartments and material under their cognizance.

595. The First Lieutenant, Navigator, and Engineer Officer will submit on Friday, the two latter officers via the First Lieutenant, reports of their weekly inspections of mechanical devices for the management and safety of the ship. In the First Lieutenant's report, the joint remarks of himself and the Medical Officer as to the sanitary condition of the ship may be included.

596. Division Officers are responsible for the conduct, within their divisions, of:

a. Weekly inspections of all compartments except tanks, voids, cofferdams, and spaces to which access is by bolted cover manhole. The results of these inspections will be entered on the hull book forms, and the reports turned in before noon Friday to the First Lieutenant or Engineer Officer.

b. Semi-annual inspections, as of 30 June and 31 December, of all unused tanks, voids, cofferdams, etc. The results will be entered on the hull book forms and turned into the Head of Department having cognizance within five days following the end of the period covered.

c. A Hull Book shall be kept in which shall be entered the reports and records required by the Bureau, as specified in Chapter 8 of the C & R Manual.

Section 4. System of Directives.

597. General.
All directives are subject to the approval of the Commanding Officer, but the Executive Officer may issue directives or administrative orders for the regulation of ship's routine and the Heads of Departments may issue directives for departmental functions.

598. A Night Order Book will be issued by the Commanding Officer and in it will be entered instructions and orders to be carried out by the Officer of the Deck during the night. The orders will list the course and speed of the ship, necessary precautions concerning the navigation of the ship and action to be taken in case of emergencies.

599. Watch Officers Orders. The Commanding Officer, through the Executive Officer, governs the officers assigned to deck duties. Watch Officer's orders are issued to the Senior Watch Officer. These orders are in turn made a part of the Officer of the Deck's Order Book and are promulgated to all officers assigned to deck duties.

600. Ship's Standing Orders are issued by the Executive Officer with the approval of the Captain. These orders amplify and supplement the regulations as contained in the Ship's "Organization and Regulations". They can be prepared by the Heads of Departments, and submitted to the Executive Officer for approval. A permanent file of all orders is kept in the Captain's Office. These will be serially numbered. Copies of these orders will be inserted in "Organization and Regulations" book.

601. Executive Officer's Memoranda are orders which continue in effect. These will be numbered serially throughout the calendar year. A complete permanent file of signed copies will be kept in the Executive Officer's Office. All officers and offices are required to keep a complete file of those in effect. These orders will be checked every quarter, and those of a permanent nature will be incorporated in the ship's "Organization and Regulations" of ship's Standing Orders.

602. Plan of the Day. The Executive Officer will issue a plan of the day detailing the routine of the ship and covering special work, drills and duties to be accomplished for that specific day. Copies will be posted in the wardroom and crew's living compartments each evening, to be effective the following day.

603. Watch Quarter and Station Bill. The Executive Officer will prepare the Watch Quarter and Station Bill. The master copy will be kept corrected to date in the Executive Officer's Office. Each Division Officer will in turn prepare a Watch Quarter and Station Bill for his division. All changes in the Watch Quarter and Station Bill will be submitted to the Executive Officer for approval, and will be incorporated in the master bill.

[illegible]

Section 4: Ship's Orders

597. General.

All directives are subject to the approval of the Commanding Officer, but the Executive Officer may issue directive or administrative orders for the regulation of ship's routine and the Heads of Departments may issue directives for departmental routine.

598. A Night Order Book will be issued by the Commanding Officer and in it will be entered instructions and events to be carried out by the Officer of the Deck during the night. The orders will list the course and speed of the ship, necessary precautions concerning the navigation of the ship and orders to be taken in case of emergencies.

599. Watch Officers Orders. The Commanding Officer, through the Executive Officer, advises the officers assigned to deck duties, Watch Officer's orders are issued to the Senior Watch Officer. These orders are in turn made a part of the Officer of the Deck's Order Book and are promulgated to all officers assigned to deck duties.

600. Ship's Standing Orders are issued by the Executive Officer with the approval of the Captain. These orders modify and supplement ship regulations as contained in the Ship's Organization and Regulations". They can be proposed by the Heads of Departments, and submitted to the Executive Officer for approval. A permanent file of all orders is kept in the Captain's Office. These will be serially numbered. Copies of these orders will be incorporated in "Organization and Regulations" book.

601. Executive Officer's Memoranda are orders which continue in effect. These will be numbered serially throughout the calendar year. A complete permanent file of signed copies will be kept in the Executive Officer's Office. All officers and officers are required to keep a complete file of those in effect. These orders will be checked every quarter, and those of a permanent nature will be incorporated in the ship's "Organization and Regulations" of ship's Standing Orders.

602. Plan of the Day. The Executive Officer will issue a plan of the day detailing the routine of the ship and covering special work, drills and duties to be accomplished for that specific day. Copies will be posted in the messroom and crew's living compartments each evening, to be effective the following day.

603. Watch Quarter and Station Bill. The Executive Officer will prepare the Watch Quarter and Station Bill. The master copy will be kept corrected to date in the Executive Officer's Office. Each Division Officer will in turn prepare a Watch Quarter and Station Bill for his division. All changes in the Watch Quarter and Station Bill will be submitted to the Executive Officer for approval, and will be incorporated in the master bill.

604. Liberty Lists are compiled and published by the personnel of the Executive Officer's office. Liberty is regulated by the Executive Officer as directed by the Commanding Officer of the ship.

605. Departmental Order Book. Each Head of Department will prepare a Department Order Book containing detailed instructions for the operation, maintenance and safety of the department concerned. Departmental orders which affect military operations, offensive or defensive capabilities of the ship will be submitted for the Commanding Officer's approval.

606. Officer of the Deck's Order Book. The Executive Officer will provide the Officer of the Deck with an "Officer of the Deck's Order Book". It will contain the Ship's Orders, the plan of the day, memorana from the Captain, Executive Officer and Department Heads, shore leave and liberty lists, binnacle list, light duty list, and P.A.L. lists. In port it will contain also material which the Officer of the Deck should have for ready reference, such as; air raid warning procedure, boat traffic schedules and boat traffic regulations, garbage disposal regulations, and in navy yard, applicable yard regulations. The Officer of the Deck's Order Book will be located in the wheelhouse at sea, and at the quarterdeck when in port.

Section 5. Police Duties and Authority.

607. The Executive Officer is charged with the ship's police, and with the enforcement of the ship's discipline and routine. In addition to the Division Officers and petty officers the Chief Master-at-Arms and his assistants are used for this purpose.

608. The Chief Master-at-Arms draws his authority from Article 1277, U.S. Navy Regulations, 1920 and the Executive Officer, from whom he receives his orders and to whom he is directly responsible. He is also subject to the orders of the Officer of the Deck in the latter's capacity as the direct representative of the Commanding Officer. In the Chief Master-at-Arms is vested the authority to enforce the internal discipline of the ship's crew particularly when the crew is not in military formation or manning stations. In carrying out their duties, however Masters-at-Arms will not interfere with the internal administration of any division.

609. The Master-at-Arms force is composed of 1 Chief Boatswain's Mate, (the Chief Master-at-Arms); 1 BM1c and 1 BM2c Assistant Masters-at-Arms; plus 1 Petty Officer in each division.

610. The Chief Master-at-Arms and the Assistant Masters-at-Arms, will be issued appropriate badges, which they are permitted to wear at all times on their uniforms while on board ship. Unless specifically directed they will not wear these ashore beyond the limits of the immediate dock. They are considered to be on duty at all times.

611. In addition to the general duties listed above, the Masters-at-Arms will perform the following specific duties:

(a) Muster all persons concerned at Mast and report when mustered to the Executive Officer.
(b) Supervise the cleaning of the Mess Compartment and regulate the mess lines.
(c) Enforce the regulations regarding sanitary disposal including security regulations regarding dumping of garbage at sea.
(d) Enforce all uniform regulations.
(e) Prevent and suppress all quarrels, disorderly and immoral conduct, gambling, profanity and irreverent conduct during Divine Service.
(f) Enforce the rules regarding the smoking lamp.

[illegible]

Section 5. Police Duties and Authority.

607. The Executive Officer is charged with the ship's police, and with the enforcement of the ship's discipline and routine. In fulfilling to the Division Officers and petty officers the Chief Master-at-Arms and his assistants are used for this purpose.

608. The Chief Master-at-Arms draws his authority from Article 1127, U.S. Navy Regulations, 1920 and the Executive Officer, from whom he receives his orders and to whom he is directly responsible. He is also subject to the orders of the Officer of the Deck in the latter's capacity as the direct representative of the Executive Officer. In the Chief Master-at-Arms is vested the duty to enforce the internal discipline of the ship's crew and when the crew is not in military formation or parade he is carrying out their duties, however Master-at-Arms will not interfere with the internal administration of any division.

609. The Master-at-Arms force is composed of 1 Chief Master-at-Arms (the Chief Master-at-Arms); 1 MAC; and 1 Ship's Assistant Master-at-Arms plus 1 Petty Officer in each division.

610. The Chief Master-at-Arms and the Assistant Master-at-Arms will be issued appropriate badges, which they are permitted to wear at all times on their uniform while on board ship. Unless specifically directed they will not wear these badges beyond the limits of the immediate dock. They are considered to be on duty at all times.

611. In addition to the general duties listed above, the Master-at-Arms will perform the following specific duties:

(a) Muster all persons concerned at Mast and report when mustered to the Executive Officer.

(b) Supervise the cleaning of the Mess Compartment and Pantry, the mess tables.

(c) Enforce the regulations governing sanitary disposal including security regulations regarding handing of garbage at sea.

(d) Enforce all quiet regulations.

(e) Prevent and suppress all gambling, the taking and keeping control, gambling, profanity and irreverent conduct during Service.

(f) Enforce the rules regarding the smoking lamp.

(g) Supervise the stowage and cleanliness of #3 Hold, including the Lucky Bag.
(h) Distribute and collect life belts and jackets issued to embarked troops.
(i) Supervise the organization of troop mess details and the issue of cleaning gear to troops.
(j) Muster all Prisoners-at-Large daily at 0645 and 1900 while in port.
(k) Turn out Division Police P.O's fifteen minutes before reveille, who will see that their men are turned out promptly at reveille.
(l) Make the rounds while in port to see that all galley lights and fires are out at 1900.
(m) Inspect all weather deck lights, (including reflected lights from compartments), doors, vents and airports for light security after "Darken Ship" is passed at sea and report secure to the O.O.D.

Assignment to the Master-at-Arms force is a permanent special detail. Division Police Petty Officers shall be changed as infrequently as possible.

Section 6. Communications.

612. The Commanding Officer of the ship is at all times under all circumstances responsible for the communications of his ship. The Communications Officer will cause to be prepared such standing orders and instructions as may be necessary to carry out the functions of communications in accordance with Communication Instructions and other directives from higher authority.

613. The Executive Officer will take steps to supervise and conduct communications training of enlisted and officer personnel in accordance with Communication Instructions.

614. Official Correspondence. All official correspondence necessary to the proper administration of the ship and the naval service shall be carried out in the manner prescribed in U.S. Navy Regulations, Articles 2041 to 2046, and in other pertinent directives from higher authority. All official correspondence, to or from the ship, shall be handled through the Captain's Office. The Ship's Secretary shall maintain an orderly and efficient procedure to ensure the prompt and proper handling and reply to correspondence. The Ship's Secretary shall also assure that correspondence is appropriately routed aboard ship.

615. Incoming Official Correspondence for the ship, whether by Guard Mail, U.S. Mail, messenger or otherwise, shall be delivered to the Captain's Office.

616. Outgoing Official Correspondence shall be prepared for the ~~Captain's~~ Captain's signature:

a. By the officer indicated on the routing slip as responsible, in case of endorsements or replies.
b. By the officer having cognizance, in the case of original correspondence.
c. All outgoing mail to be signed by the Captain shall be delivered to the Captain's Office for signature, logging and mailing. Sufficient copies must be attached to allow a copy for each office through which correspondence is to pass, plus two (2) green file copies for the main file. Selection of file numbers for correspondence will be based on the Navy Filing Manual and the "File Key" of ship's file. All subject file numbers will be preceded by the ship's designating number.

617. Officers preparing correspondence shall see that other officers who are in any way concerned with the subject are consulted. Correspondence which has been prepared shall be initialed on one of the copies by the officer preparing it and shall be routed for the initial of all other officers concerned. The department preparing the correspondence will keep a copy.

618. Secret and Confidential Correspondence shall be handled in accordance with U.S. Navy Regulations, Art. 76 and U.S. Fleet Letter #7L-39. Confidential and secret correspondence shall be at all times either in the physical custody of an officer or other person specifically and properly authorized to handle it; or in the confidential files; or in stowage providing security equal to the confidential files. In preparing confidential or secret correspondence, the carbon paper, notes, and rough copies shall be burned; the officer originating the correspondence is responsible for this. Confidential files shall be kept locked except when actually in use. Only persons specifically authorized by the Commanding Officer shall have access to them. The Ship's Secretary will be custodian of the ship's secret file, which shall contain, without exception, all secret correspondence aboard.

619. Files. A complete set of correspondence files shall be maintained in the Captain's Office. Each department shall maintain such files as necessary for the functioning of that department; but no correspondence which is being routed around may be retained, for departmental files or otherwise, unless a notation on the routing slip so directs. The Ship's Secretary shall cause the ship's files to be kept in accordance with the Navy Filing Manual, and shall ensure that individual file jackets are not misplaced.

620. Reports. A list of routine reports, listed chronologically by dates due, shall be kept by the Ship's Secretary in the Captain's Office. Heads of Departments shall have pertinent excerpts from this list and shall be responsible for submitting their reports on time.

621. Despatch Communications. Mail, Speedletters, Mailgrams and Visual messages shall be used whenever possible, rather than radio, in the conduct of communications. Heads of Departments must exercise proper planning and foresight in order to lessen the number and length of administrative despatches transmitted.

622. Security. The contents, or existence, of despatches shall not be divulged to anyone other than those specifically required to know it in connection with their duties.

623. Outgoing Despatches, shall be written up on the Originators Form, indicating method of transmission desired, action and information addressees, security classification and degree of precedence, and shall be signed by The Executive Officer or the Captain before delivery to the Ship's Communication Office. If any change on the completed originator's form is necessary in order to comply with Communication Instructions the originator will be notified by the Communication Officer.

624. Incoming Despatches, shall be written up and distributed by the Ship's Communication Office in accordance with detailed instructions issued by the Communication Officer.

625. An Action Officer shall be designated for each incoming despatch and he shall assume full responsibility for acting upon the message, preparing the reply, or taking any other action necessary immediately or within the time limit allowed. An Action Officer incorrectly designated remains responsible until he has pointed out the proper Action Officer and until the designation on the message has been changed by the routing officer.

626. Signals. Incoming signals shall be handled by the Communication Office with the highest possible speed. The senior signalman on watch shall immediately inform the O.O.D. of the receipt of all signals addressed to the ship.

627. Outgoing Despatches Involving the Payment of Charges shall be taken to:

a. The ship's Communication Office to be placed in the proper form.
b. The Post Office for payment of charges and/or abstracting.
c. The ship's Communication Office for transmission.

Private commercial messages shall not be transmitted unless stamped "PAID" and initialed by the mail clerk.

628. Post Office Activities:

a. The Ship's Post Office shall be regulated and administered by the Communication Officer.

b. The Post Office will be open from 0830-1100 and from 1300-1500 daily, subject to operational routine.

c. Incoming U.S. Mail for enlisted Men shall be delivered, as follows: Mail for enlisted personnel shall be sorted into chief petty officer mail, and remaining mail sorted by divisions. When sorting is completed, the mail clerk shall inform the O.O.D. who shall pass the word for mail petty officers to report to the Post Office for mail. Thers shall be a police petty officer designated by the Executive Officer to receive the Chief Petty Officer mail, and a petty officer designated by each division officer to receive the division mail. Mail petty officers are responsible that mail is delivered correctly and promptly to addressees and that undeliverable mail is returned immediately to the Post Office.

d. The Time of Closing for Outgoing Mail shall be posted outside the Post Office. The mail clerk shall collect mail from the mail boxes one half hour before the time of the mail closing.

629. All outgoing personal mail and messages shall be censored in accordance with "Censorship Regulations, U.S. Navy". The Navigation Officer is designated Chief Censor, and will regulate and administer the censoring.

630. All hands are expressly forbidden to post outgoing U.S. Mail ashore or at any other places except the regular U.S. Mail boxes on board ship, or in any other way to circumvent the Censorship Regulations.

Section 7. Safety Regulations.

631. Attention is directed to standard safety precautions or orders prescribed by Navy Regulations, Bureau Manuals, etc.

632. All Officers shall familiarize themselves thoroughly with all safety precautions and orders pertaining to the maintenance of their Departments and shall be responsible for the careful observance of safety regulations by personnel under them. Detailed safety precautions shall be posted in boats, magazines, clipping rooms, engineer spaces and in other places throughout the ship as deemed necessary by the Heads of Departments concerned.

632. Safety Precautions to be taken when men are sent aloft. Wet rigging, dry metallic rigging, and the mast itself may have induced voltage from operating transmitting antenna. When it is necessary to send a man aloft in the vicinity of radio or radar transmitting antenna, the following procedure will be followed:

a. Permission will always be obtained from the Officer of the Deck before sending personnel aloft.
b. The Officer of the Deck will notify the Communication and Radar Officers of the actual time of readiness to go aloft.
c. The Communication Officer, or Radar Officer shall, after obtaining permission from the Captain and the officer controlling the circuits manned, secure the radio and radar transmitters and so notify the Officer of the Deck. Only then may men be sent aloft.
d. The Officer of the Deck will notify the Communication and Radar Officers as soon as personnel have laid below from the masts.
e. Safety belts will be worn by all men sent aloft.

633. Double Bottoms, Voids and Fuel Oil Tanks.

a. No person shall enter a tank or compartment which has contained fuel oil or gasoline without carrying out instructions contained in the Bureau of Construction and Repair Manual, paragraph #606.
b. Any man entering a double bottom or similar compartment will have a life line securely fastened around his body, and guarded by enough men to be able to quickly pull the man out.
c. Prior to a man's entrance, such compartments shall be lighted by a portable safety lamp fitted with a gas-tight globe and wire guards.
d. Whenever possible, such compartments shall be subjected to fresh air for a period of six (6) hours prior to entrance. Alternate exhaust and supply may be used to assist in the removal of pocketed gas.

Section 2. Safety Regulations.

[illegible]. Attention is directed to standard safety precautions or orders prescribed by Navy Regulations, Engineering Manuals, etc.

[illegible]. All Officers shall familiarize themselves thoroughly with all safety precautions and orders pertaining to the conference of their Departments and shall be responsible for the strict observance of safety regulations by personnel under them. Detailed safety precautions shall be posted in boats, machine, shipping rooms, engineer spaces, and in other places throughout the ship as deemed necessary by the Heads of Departments concerned.

[illegible]. Safety Precautions to be taken when men are sent aloft. Dry rigging, dry metallic rigging, and the mast itself may have imposed voltage from operating transmitting antenna. When it is necessary to send a man aloft in the vicinity of radio or radar transmitting antenna, the following procedure will be followed:

a. Permission will always be obtained from the Officer of the Deck before sending personnel aloft.
b. The Officer of the Deck will notify the Communication and Radar Officers of the actual time of beginning [illegible].
c. The Communication Officer, or Radar Officer shall, after obtaining permission from the Captain and the Officer Operating the Virtually manned, secure the radio and radar transmitters and so notify the Officer of the Deck. Only then may men be sent aloft.
d. The Officer of the Deck will notify the Communication and Radar Officers as soon as normal have been taken below from the mast.
e. Safety belts will be worn by all men sent aloft.

[illegible]. Double Bottoms, Voids and Fuel Oil Tanks.

a. No person shall enter a tank or compartment which has contained fuel oil or gasoline without carrying out instructions contained in the Bureau of Construction and Repair Manual, paragraph [illegible].
b. Any man entering a double bottom or similar compartment will have a life line securely fastened around his body, and guarded by enough men to be able to quickly pull the man out.
c. Prior to a man's entrance, such compartments shall be lighted by a portable safety lamp fitted with a gas-tight globe and wire guards.
d. In every possible, such compartments shall be subjected to fresh air for a period of six (6) hours prior to entrance. Alternate exhaust and supply may be used to assist in the removal of pocketed gas.

e. Whenever a fuel oil tank is to be entered to accomplish work requiring heated rivets, burning, welding, hammering, etc., all such tanks and all pipes leading to or from such tanks shall be cleared of vapor after the fuel oil has been removed by flooding with water, followed by blowing through with air for at least twelve hours by means of a portable blower or by blowing through with live steam. In using live steam, due regard must be given to the possibility of overheating adjacent compartments such as magazines, storerooms, etc. After blowing through with live steam all manhole plates of the tank shall be removed and the tank ventilated by means of a portable blower for at least two hours. No person or persons shall enter a fuel oil tank for any purpose without obtaining permission each time from the Commanding Officer, who shall assure himself that the tank is safe to enter.

f. NEVER GO INTO A CONFINED PLACE where ventilation may be defective withou first testing the air with a flame safety lamp. Unless the light burns brightly the compartment shall not be entered. No man shall enter such compartment unless a man is attending him at the entrance, whether or not the test shows the air to be good.

634. Deck Safety Precautions.

a. All troops, passengers and crew members not actually assisting in handling lines will be kept clear of the side when mooring ships alongside or fueling ships at sea.
b. Men working over the side when the ship is at sea or anchored in port shall wear a life jacket and shall wear a safety belt with safety line attached at all times.
c. Boats shall never be loaded beyond their designated capacity. The senior line officer in the boat or the boat coxswain shall exercise his authority to enforce this regulation.
d. Nothing shall be thrown overboard from the upper works, weather decks or ports; this refers particularly to cigar and cigarette butts.
e. Open hatches must be protected by life lines or gratings when not in use. Life lines must be strong enough to prevent anyone falling down the hatch if he falls against the line.
f. Hoisting equipment will not be overloaded. Slings shall be maintained in good condition and of suitable strength for the job at hand. When slings are released, they must be entirely free from the load. Winch operators shall be on the lookout for defects in hooks, chains and cables, and report such defects immediately to the Division Officer.

635. Electrical Safety Precautions.

a. No piece of electrical apparatus shall be disassembled for the purpose of shining.
b. Only authorized persons who are detailed for such repair and upkeep shall work on electrical equipment ~~or circuits.~~ This includes replacing fuses.
c. Fuses larger than 30 ampere capacity shall be removed and replaced only after the circuit has been completely de-energized. When a fuse blows, it shall be replaced with the fuse of the same rated capacity.

c. Whenever a fuel oil tank is to be entered to repair, hot work, painting, scaling, welding, burning, etc., all such tanks and all pipes leading to or from such tanks should be cleaned of vapor after the fuel oil has been removed by flooding with water, followed by blowing through with air for at least twelve hours by means of a portable blower or by blowing through with live steam. In using live steam, due regard must be given to the possibility of overheating sensitive compartments such as magazines, stores, etc. After blowing through with live steam all manhole plates of the tank shall be removed and the tank ventilated by means of a portable blower for at least two hours. No person or persons shall enter a fuel oil tank for any purpose without obtaining permission each time from the Commanding Officer, who shall assure himself that the tank is safe to enter.

f. NEVER GO INTO A CONFINED PLACE where ventilation may be defective without first testing the air with a flame safety lamp. Unless the light burns brightly the compartment shall not be entered. No man shall enter such compartment unless a man is actually lost at the entrance, whether or not the best shows the air to be good.

40. Deck Safety Precautions.

a. All officers, passengers and crew members not actively engaged in working cargo will be kept clear of the cargo hatches while ships alongside or loading ships at sea.

b. Men working over the side when the ship is at sea or anchored in port shall wear a life jacket and shall wear it during bad weather. Life attached at all times.

c. Boats shall never be loaded beyond their authorized capacity. The senior line officer in the boat or the boat officer shall exercise the authority to enforce this regulation.

d. Nothing shall be thrown overboard from the upper decks, neither from ports or portal; this refers particularly to cigars and cigarette butts.

e. Deep tanktops must be protected by life lines or stanchions when low in use. Life lines must be strong enough to prevent persons falling down the hatch if he rolls against the line.

f. Hoisting equipment will not be overloaded. Slings shall be maintained in good condition and of suitable strength for the job at hand. When slings are released, they must be entirely free from the load. Which operator shall be on the lookout for defects in hooks, chains and cables, and report such defects immediately to the Hoisting Officer.

41. Electrical Safety Precautions.

a. No piece of electrical apparatus shall be disassembled for the purpose of wiring.

b. Only qualified persons who are detailed for such repairs shall work on electrical equipment or apparatus. This includes replacing fuses.

c. Fuses larger than 30 ampere capacity shall be removed and replaced only after the circuit has been completely dis-energized. When a fuse blows, it shall be replaced with the fuse of the same rated capacity.

d. Circuits shall be de-energized before repair work is undertaken.

e. In case of an electrical fire:
   (1) De-energize the circuit.
   (2) Extinguish the fire by means of a CO_2 fire extinguisher directed at the base of the flame. Do not use salt water or Foam-type extinguishers in fighting electrical fires.
   (3) Report casualty to the Officer of the Deck.
   (4) Secure ventilation.

h. If open type electrical apparatus is in operation when the presence of explosive vapor is detected, the apparatus shall be de-energized by means of switbh outside the dangerous space.

i. Flames and sparks of all kinds shall be kept away from the vicinity of storage batteries.

j. No work shall be undertaken on distribution boards except under the direction of the Electrical Officer.

636. Welding or Flame-Cutting Operations.

a. No welding or cutting shall be conducted during loading of inflammable liquids or explosives, or while such materials are in a barge or lighter alongside.

b. Before any welding or cutting operations are commenced, permission of the Officer of the Deck will be obtained. The Officer of the Deck will be responsible for notifying the Commanding Officer, seeing that the required fire watches are posted, and that an inpection of the area including the adjoining compartment is made by an officer before extending permission. These instructions apply both to welding by own ship's force and repair forces from other activities.

c. Fire watches equipped with portable CO_2 extinguishers will be detailed to standby each welder to see that sparks are not allowed to fall on inflammable material.

d. Where heat of the flame may project through the deck or bulkhead into an adjacent compartment, that compartment shall be inspected to see that inflammables are removed, and an additional fire watch will be posted in the compartment.

e. When Welding by the Navy Yard Force is to be done, the First Lieutenant shall arrange to have the Yard furnish the Officer of the Deck with a list of the places where welding is to be done. The First Lieutenant shall then have his personnel inspect all such places outside the Engineering Department and shall have the Division Officers concerned furnish a man as fire watch for each welder working in a place where there may be danger of causing a fire. The Engineer Officer shall inspect places within the Engineering Department and similarly furnish a fire watch where he considers it necessary.

637. Gasoline and Inflammable Substances.

a. When handling ammunition, fuel or gasoline, and at such other times as the safety of the ship may demand, the smoking lamp shall be extinguished. When word is passed that the smoking lamp is out, all welding is prohibited, no naked lights shall be used, and electrical apparatus which may spark is secured. The Officer of the Deck shall have the Boatswain's Mate of the Watch enforce this order on the weather decks and the Masters-at-Arms below decks.

b. Gasoline shall not be used for cleaning purposes.

c. No one shall introduce without proper authority aboard ship, any inflammable substance such as gasoline, benzine, or explosive cleaning fluids or brightwork polish.

d. Gasoline, even in small quantities, while being carried or transferred must always be in a closed container.

e. Gasoline shall never be used in confined or closed spaces or in such a manner as to endanger personnel or material. Ventilation is of prime importance in all spaces subjected to gasoline or fuel oil vapor.

f. Aviation gasoline is poisonous and if it comes in contact with the skin it must be washed off immediately with a strong lather solution.

NOTE: Cargo handling safety precautions are discussed in the Cargo Handling Bill, Section 6 of Chapter V.

Section 8. Miscellaneous Regulations.

638. Alcohol, issue of.

Alcohol shall be issued only to commissioned officers by the Supply Department. Issues shall be made only to an officer presenting a stub requisition signed by a Head of Department and approved by the Executive Officer. Alcohol drawn from store shall be kept in the custody of a responsible officer of the department concerned.

639. Auditing Boards.

Auditing Boards shall be established which shall, prior to the 10th of each month, complete the audit of the accounts of the Wardroom Mess and the Chief Petty Officers' Mess.
The audit of each activity shall be conducted by the senior member assisted by two other members designated by him. He shall designate specifically one or more members to personally verify the funds and certify in the report to this verification. The board shall prescribe rules, regarding the time and manner in which inventories records, and funds are to be presented for examination, and shall recommend to the Commanding Officer such changes in methods of operation and accounting as it considers necessary.

640. Censorship.

Censorship regulations will be promulgated from time to time in ship's orders, to meet changing requirements of higher authority.

641. Clothing and Small Stores.

Clothing and small stores will be issued from the Small Stores Issue Room in accordance with a schedule prepared by the Supply Officer. All issues shall be made for cash.

642. Cold Storage Compartment

The cold storage compartments and the receipt, stowage, and issue of provisions therefrom are under the cognizance of the Supply Officer. The Engineer Officer shall maintain temperatures within the following ranges:

Meat Room - - - - - - - - - 10 - 20
Fruit & Vegetable Rooms - 35 - 40
Butter and Egg Room - - - 32 - 37

The Engineer Officer shall have temperatures recorded hourly, and shall notify the Supply Officer when temperatures do not fall within the ranges specified above. The cold storage compartments shall be opened only by special permission of the Supply Officer. The period during which doors are allowed to remain open shall be reduced to the minimum. Mess Stewards shall present their routine requirements to the Chief Commissary Steward on the day previous to issue.

643. Lost or Damaged Equipment

Men losing or damaging government material shall make an immediate report of the fact to their division officer. The division officer shall investigate and report in writing to his Head of Department all the circumstances attending the loss or damage. The Head of Department shall take what action he deems necessary and furnish an appropriate memorandum to the Officer of the Deck for entry in the log.

644. Galley and Bake Shop.

The senior ship's cook and baker on watch shall, under the supervision of the Chief Commissary Steward, have charge of the galley and bake shop respectively. They shall be responsible for the cleanliness and appearance of galley and bake shop equipment and of personnel preparing food.

645. Garbage, Refuse, Oil Pollution.

a. Pollution of harbors and coastal waters by oil is prohibited by law. No oil shall be thrown or dumped overboard when in such waters.
b. No garbage or other refuse will be dumped inside harbors or when close to shore except as specifically authorized. All cans will be punctured and flattened and no wooden boxes or crates will be dumped overboard except under unusual circumstances and then only after being completely broken.
c. At se under wartime conditions garbage will be dumped overboard daily one hour after sunset.

646. General Announcing System - Use of.

a. Except in case of emergency no person shall use the general announcing system without obtaining the permission of the Officer of the Deck.
b. The use of this system shall be restricted to matter of general import. As a rule the word shall not be passed for an individual officer or man until all efforts to locate the individual by messenger or telephone have failed. This does not prohibit the use of this system when the prompt presence of an individual at a certain place is necessary.
c. Care shall be taken to assure that proper use is made of the selective features of the system. This applies particularly to the officer's circuit over which the word should be passed only when it effects officers.
d. Only in an emergency shall the system be used between Taps and Reveille.
e. Word shall be passed over the system by the Boatswain's Mate of the watch. The Officer of the Deck is responsible that the word is passed correctly and over the proper circuits.

647. Heads and Washrooms.

a. All heads and washrooms shall be thoroughly cleaned and clamped down on the morning watch. They shall be dressed down as often as necessary during the day to keep them in a clean and sanitary condition.
b. In addition to the usual cleaning with soap and water, washbowls, wash troughs, and toilet seats shall be dressed down once daily with 5% compound creosol solution after being carefully cleaned and then washed with clean water.

648. Library.

The Ship's Library shall be under the cognizance of the Chaplain. A qualified enlisted man shall be designated as librarian. The Chaplain shall prepare instructions governing the use of the library which, when approved by the Executive Officer, shall be posted for the information and compliance of officers and men.

649. Locks, Keys, and Safe Combinations.

a. The keys to all spaces and receptacles containing projectiles and explosives and the keys to all sprinkling system, testing caps and plugs shall be kept in the key locker in the Captain's Cabin. The Gunnery Officer shall issue department orders stating the names and rates of personnel authorized to receive these keys.
b. Keys to storerooms shall be issued to Heads of Departments responsible for such spaces. These keys may be reissued to actual custodians.
c. Duplicates of all keys except those to spaces under the cognizance of a single Head of Department shall be retained by the First Lieutenant; Custodians shall be held accountable for such keys and required to replace them in case of loss.
d. Master keys to storeroom shall be in the custody of each repair party, and during liberty hours, the Officer of the Deck shall have master keys to storerooms in his possession.
e. Combinations to all safes except those containing funds of the Supply Department, shall be written out and deposited in the Ship's Vault in sealed envelopes.

650. Mess Gear.

The removal of mess gear from the mess hall is prohibited. Disciplinary action will be taken on all persons having mess gear in their possession and similar action will be taken on the Senior Petty Officer in charge of the compartment in which mess gear is found.

651. Movies.

The Chaplain shall be the officer in charge of motion pictures and shall be detailed by the Executive Officer. He shall be responsible for all motion picture gear, necessary reports and arrangements for the conduct of shows.

652. Provisions and Stores Deliveries - Inspection of.

Provisions or stores delivered on board for the General Mess, Ship's Store, Ship's Service Store, Officer's and Chief Petty Officer's Messes shall be inspected as to quantity and quality as follows:

a. For all the above activities, by the Medical Officer having the day's duty as to quality.
b. For the General Mess, Ship's Store and Ship's Service Store by an officer of the Supply Department.
c. For the Wardroom Mess, and Chief Petty Officer's Mess by the Officer of the Deck.
d. Officers inspecting as to quantity shall personally ascertain the weight or amount of items delivered and certify this on the delivery or receipt papers to the Mess Treasurer or Supply Officer.

653. Service Records.

Safeguarding service records of enlisted personnel is the responsibility of the Executive Officer. The records shall be kept in the Executive Office and shall not be removed except by the Executive Officer's Yeomen or by officers who shall receipt for them. Enlisted men may inspect their own service records upon presentation of a chit from their division officer.

654. Spaces - Assignment of.

Restricted areas which shall be used by enlisted personnel only in the performance of their regularly assigned duties are:

a. Signal Bridge.
b. Communication Office, and Radio Rooms.
c. Workshops.
d. Engineering Spaces and Pump Rooms.
e. Offices and Storerooms.
f. Clipping Rooms and Magazines.
g. Radar & Chart Room.

655. Work done in the ship's work shops shall be under the direction of the Head of Department having cognizance over the shop. Work shall be done for other departments upon receipt of a Request Form signed by the Head of Department requesting the work. The Head of Department responsible for doing the work shall assign it a priority which, if not satisfactory, shall be referred to the Executive Officer for decision.

CHAPTER VII

Section 1. Conduct and Military Appearance

656. Petty Officers shall be governed by Article 1275 of U.S Navy Regulations, 1920, in the performance of their duties. All Officers will require that the ship's petty officers zealously and strictly enforce all regulations contained herein or promulgated separately for maintaining a high standard of conduct and military appearance for the entire crew.

657. General Regulations Governing Conduct:

a. Men on report, on the medical restricted list, undergoing extra duty punishment, awaiting trial by Deck Court or Summary Court Martial, or awaiting the publication of such Courts, shall not be granted liberty except in exceptional circumstances. Under such circumstances special liberty may be approved by the Executive Officer.

b. Any loud or boisterous conduct is prohibited at all times and shall be promptly suppressed by any petty officers present.

c. The use of profane and obscene language is prohibited.

d. The possession or consumption of beer, wines, spirits or other alcoholic beverages is prohibited aboard the ship.

e. Enlisted personnel are forbidden to have in their possession, without permission from proper authority, any articles or wearing apparel, bedding or other property, belongint to another person in the Navy.

f. Any property, Government or personal, other than his own, found by any enlisted man, shall be turned in immediately to the Master-at-Arms of the ship. All clothing shall be legibly marked with the owner's name, in accordance with Uniform Regulations, U.S. Navy.

g. In cases where men receive clothing from persons discharged from the Naval Service, or where men desire to exchange clothing for their own convenience, the Division Officers concerned will investigate each case and, if warranted, will prepare a memorandum authorizing the Master-at-Arms to "D.D" the clothes in question.

h. The clothes, arms, military outfits and accoutrements furnished by the United States to any enlisted person in the Navy are required by such persons as a part of their prescribed uniform, or outfit, and shall not be sold, bartered, exchanged, pledged, loaned or given away, except when approved by proper authority.

i. No person on board ship is allowed to keep any personal arms in possession. All such arms will be turned into the Gunnery Officer for safekeeping.

j. The smoking lamp will normally be lighted at all times and in all places not prohibited by the following regulations, except for special restrictive measures established by Heads of Departments and approved by the Executive Officer sor spaces under their cognizance.

658. Smoking Regulations.

(a) Smoking is prohibited at all times:
1. In magazines and clipping rooms.
2. In gasoline stowage compartments.
3. In boats.

(b) Smoking is prohibited under the following conditions:
1. On all weather decks - From "Darken Ship to "Light Ship."
2. At boat stations - while fueling boats.
3. In Living Compartments - after "Tattoo".
4. In Holds - when vehicles are stowed therein.
5. In Mess Compartments - during meal hours.

(c) Smoking is prohibited throughout the ship:
1. While fueling.
2. While loading or discharging ammunition.
3. During Church Services.

(d) Butts shall not be thrown on deck or over the side but shall be disposed of in cans or ash trays provided at rail stanchions on deck and in compartments.

659. Military Appearance.

Division Officers shall regularly inspect the men under their charge and enforce the maintenance of an acceptable standard of military appearance. Laxity must not be tolerated. Junior Officers will be instructed in their responsibilities and held accountable for the military appearance of their men. The Officer of the Deck will see that all liberty parties are inspected before leaving the ship, to insure that discredit is not brought upon the ship and the Navy, as a result of a lack of enforcement of the requirements of military appearance.

Section 2. Discipline.

660. Meritorious Mast. *Whenever any enlisted man aboard ship does anything noteworthy, or commendable, out of the usual run of duty, or displays exceptional energy, judgement, or initiative, a report will be made of this to the Commanding Officer by the senior under whose observation he has come. The Commanding Officer will give such reports careful consideration at mast and, should the circumstances warrant, an entry shall be made of the facts in the man's service record. Each quarter, or oftener, the names of the men who have been so commended shall be posted on the ship's bulletin board, together with a brief statement of the circumstances concerning the commendation.

661. Mast and Mast Reports.

a. All reports of officers against enlisted men shall be made in writing by the person making the report, and turned into the Executive Officer's Office.

b. A petty officer, other than the Chief Master-at-Arms desiring to place men on report, shall lay his case before his Division Officer if the men are in his own division, or before The Officer of the Deck if other divisions are involved. The report shall appear in the name of the officer investigating it, with the petty officer concerned as a witness.

c. The following personnel will normally attend mast whenever it is held: Chief Master-at-Arms, Executive Officer's Yeoman, reporting officers, witnesses and the Division Officers of men brought to mast.

d. All men on report, and witnesses, shall be mustered by the Master-at-Arms on Deck 02 outside Captain's Cabin.

e. The Executive Officer will hold preliminary mast, investigating all cases.

f. The Executive Officer will hold request mast daily at 1100. Men desiring to see the Executive Officer may see him at this time provided they have obtained permission first from their Division Officer, and next from the Head of the Department. Such men shall give their names to the Chief Master-at-Arms prior to 0930 of the day on which they wish to see the Executive Officer.

662. Prisoners.

a. All prisoners, men under sentry charge, restricted, etc., shall be accounted for by the Chief Master-at-Arms.

b. Prisoners shall not be permitted to have with them in the place of confinement any clothes in excess of their immediate need, nor any other articles except toilet gear. They shall not be permitted any reading matter, except a Testament and education matter.

c. The effects of men in confinement will be taken by the Chief Master-at-Arms and retained in the Lucky Bag for safekeeping. Money or valuables belonging to prisoners shall be deposited with the Disbursing Officer.

d. Prisoners will obtain their bedding at 2000 each evening.

e. Daily at 1400, except Wednesdays and Saturdays, all prisoners who have been over 5 days in confinement, shall be taken on deck for 1 hour's exercise.

f. The sentry on brig post shall keep a careful watch over all prisoners to the end that none are allowed to escape or injure themselves, and that no person, without authority, is to converse with them, or pass any article to them.

g. Prisoners-at-Large will be made so only upon order of the Commanding Officer. The Officer of the Deck will ascertain the facts in all cases and request this permission from the Commanding Officer. Prisoners-at-Large will not be sent ashore on duty, or sent away from the ship on working parties without specific authority of the Executive Officer.

663. Restricted Lists:

a. Men falling into one or more of the following classifications shall be restricted from liberty, and shall not be permitted to leave the ship without specific authority of the Executive Officer.

1. Under investigation.
2. Prisoners-at-Large.
3. Awaiting disciplinary action (men on report).
4. Restricted list.
5. Medical restricted list.
6. Extra duty punishment.

b. The Master-at-Arms having the day's duty shall muster men coming under the classifications noted above, and report to The Officer of the Deck at 0645 and 1900.

Section 3. Advancements.

664. General

a. The aim of the training program of the ship is to provide fully qualified rated men to fill the vacancies of petty officers aboard the ship and to furnish a supply of well trained, experienced men for the fleet.

b. To accomplish this purpose, Division Officers will institue a program of training and instruction, and will keep track of progress made by the men in training.

665. Procedure for Advancement.

a. On or before the 15th day of each month, Division Officers will compile a list of all men who have qualified in the required practical factor for the next higher rating, who have satisfactorily completed the appropriate Bureau of Personnel training course (if available), and who are recommended for advancement.

b. This list will be submitted to the Executive Officer's Office via their Head of Department.

c. After checking for the necessary qualifications as to eligibility, time in present pay grade, conduct, etc., and upon approval by the Executive Officer the list is submitted to the various Examining Boards for action.

d. The Examining Boards will prepare the questions, conduct the examination, mark the papers and prepare the report of examination which shall be turned into the Executive Officer's Office on or before the 25th of the month.

Examining Boards are detailed as follows:

Ratings	Board Members
Deck Ratings - - - - - -	Navigator, Gunnery Officer, Boatswain.
Seamen - - - - - - - - -	Boat Div. Officer, First Div. Officer, Second Div. Officer.
Communication & Radar -	Communication Officer, Radar Officer, Ass't Communication Officer.
Engineers & Electricians -	"M" Div. Officer, "A" Div. Officer, Electrician.
Artificers - - - - - - -	First Lieutenant, Ass't First Lieutenant, Carpenter.
Medical Corpsmen - - - -	Medical Officer, Ass't Medical Officer, Dental Officer.
Storekeepers, Cooks, & Stewards. - - - - - - -	Supply Officer, Ass't Supply Officer, Mess Treasurer.

Section 4. Leave and Liberty.

668. Liberty.

a. Liberty will be regulated by the Executive Officer under general instructions from the Commanding Officer. The sections or watch to be granted liberty will be designated on the Plan of the Day.

b. Normally, liberty hours will be from 1630 until approximately 0800 the following morning.

669. Special Liberty. Liberty outside regular liberty hours will be granted only for particular reasons which must be stated in full on the form provided. Written requests must be submitted by the man concerned in time to reach the Executive Officer's Office prior to 1000 via the Division Officer and Head of Department who shall investigate each case and make definite recommendation.

670 Men not in an authorized liberty section may be granted liberty during regular liberty hours in special cases, provided they obtain volunteer reliefs from men in their own divisions who otherwise would be entitled to liberty. Such reliefs must be of similar rating. The man desiring the liberty shall submit a written reques to his Division Officer naming his relief, which if approved shall be forwarded to the Executive Officer's Office prior to 1000 on the day such liberty is to be granted.

671. Men who are prisoners at large, in confinement, awaiting disciplinary action, restricted for investigation, on binnacle list, sick list, medical restricted list, or restricted list, will not be granted liberty except by specific authority of the Executive Officer in each instance.

672. Identification Cards.

An Identification Card, shall be prepared for each man in the crew. It is forbidden to carry an Identification Card reported lost, a card belonging to another man, or for a man to loan his card to another, or to allow it out of his possession at any time.

673. Liberty Lists.

a. Division Officers will submit a signed list of men rating liberty for each day to the Executive Officer's Office at least one hour prior to the time set for liberty.

b. The Executive Officer' Office will check the division liberty list, removing the names of all Prisoners-at-Large, men on the restricted lists and men doing extra duty punishment, etc., and adding the names of men granted special liberty and men having authorized standby volunteers.

c. The corrected lists shall then be delivered to the O.O.D. at the Quarterdeck where they are used as a check-off list for men leaving and returning from liberty.

674. Men Going On Liberty.

a. Liberty Call shall be sounded 15 minutes before the time liberty boats are scheduled to leave the ship.

b. At Liberty Call, men going ashore will muster on the Quarter-deck for inspection by the O.O.D. Upon completion of inspection men will proceed to the gangway by divisions. Each man will show his I.D. Card to the O.O.D. and see that his name is checked off on the Liberty List before going over the side.

c. Men desiring to take ashore any personal articles will obtain a blank property pass stamped with the Ship's Seal from the Executive Officer's Office. The pass will be filled out completely, except the validating signature, by the man concerned including a list of items on the back of the pass. This should be done before Liberty Call.

d. When Liberty Party is mustered, all men with packages will fall in aft and be inspected by the duty Master-at-Arms to see that the itemized list on the back of the pass agrees with the articles to be taken off the ship; and, these articles will be investigated as to ownership.

e. The Master-at-Arms will then collect the passes, bring them to the O.O.D. for signature and redistribute them to the proper owners.

f. All articles must be so wrapped or stowed in containers or hand luggage that they can be inspected thoroughly and without delay. No man shall take a package, container, or piece of hand luggage over the side without inspection by competent authority.

675. Chief Petty Officers.

Chief Petty Officers who are not assigned to the duty section of the day shall obtain permission to go on regular liberty from their Division Officers. Liberty outside of regular liberty hours, or at times when the section to which they are assigned is the duty section, requires the approval of the Executive Officer on written request prepared and forwarded in accordance with the provisions of paragraph on special liberty. Each Chief Petty Officer shall record his departure and return in the Chief Petty Officer leave and liberty book.

676. Uniform.

The Officer of the Deck shall not permit any man to go over the side whose appearance is not in all respects satisfactory.

677. Men Returning From Liberty.

a. Each man on his return from Liberty shall show his I.D. Card to the Officer on watch at the gangway, and shall standby until his name is checked off the Liberty List. Men who return to the ship from liberty or leave, with packages, baggage, or articles procured ashore, shall submit them for inspection at the gangway before leaving the vicinity of the gangway.

b. Any man returning who has no I.D. Card shall so report to the Officer of the Deck. In each case the Officer of the Deck shall notify the Executive Officer's Office by memorandum with the name and time of return of the man. Loss of I.D. Card will be considered a mast offense.

678. Liberty For Messmen.

a. Liberty Lists for Messmen will be compiled and turned in by the duty Master-at-Arms.

b. Daily liberties for Messmen shall expire on the dock at 0600 the following morning, or with the Ship's Company, if regular liberty expires before that time.

c. 48 - Hour Liberties shall expire on the dock at 0600 the second morning, or with the Ship's Company, if regular liberty expires before that time.

679. Leave - Enlisted Men.

The policy of the ship in regard to leave for the crew is published herein for the guidance of all enlisted men in requesting leave, and for all officers in forwarding such requests.

a. Authorized absence from duty for more than 48 hours shall be considered as "Leave".

b. Leave papers shall be signed and given to the man concerned on the date appearing on such papers.

c. In many cases the reimbursement money for men under orders depends upon proper endorsements. It is imperative therefore that all endorsements be entered where required (including leave papers), and that these endorsements be made in ink in every case.

d. The proper entry in service records shall be made of all leave taken, giving inclusive dates.

e. When possible, such leave as the exigencies of the service permit will be granted from time to time.

Section 5. Clothing and Uniform.

680. Clothing. Present directives require officers and enlisted men to wear uniform at all times except when in their own homes with less than three guests present or when engaged in athletics.

681. Officer's Uniform. At sea officers shall wear khaki or grey at all times except when engaged in work below decks or elsewhere which involves contact with oil, grease, paint or the like. In port, officers may wear khaki or grey during working hours, but will conform to the uniform regulations of the S.O.P. after working hours or when leaving the ship.

682. Uniform - Enlisted Men. At sea, dungarees may be worn at all times. In port, dungarees may be worn aboard ship except by men on watch at the gangway, orderlies, messengers, and sentries. Duty boat crews except those engaged in hauling stores, working parties, or equipment will be in the uniform of the day. All men leaving the ship on liberty must be in the uniform of the day, which will be established by the S.O.P.

683. Shorts and Short Sleeved Shirts. In order to avoid flash burns from exploding bombs or projectiles, no shorts will be worn on board except for athletic purposes or when permission to do so specifically granted. Officers and men shall wear long sleeved shirts and long trousers. All hands will wear shoes and socks.

684. Cleanliness and Appearance. Uniforms shall be maintained in such condition that wearer will present a neat appearance at all times.

685. Messmen Uniform. Messmen and men working in galleys, bake shops, and soda fountain, shall wear undress whites with white aprons. They may also wear chef's hats in their places of duty, but not on the weather decks.

686. Uniform for Cooks, Stewards and Steward's Mates. The uniforms for Cooks, Stewards, and Steward's Mates on duty will be prescribed by the Ward Room Mess Treasurer.

687. Uniform for U.S. Mail Clerks and Guard Mail P.O.'s. U.S. Mail Clerks and Guard Mail Petty Officers ashore on duty will wear the uniform of the day.

688. Shoes. Shoes must be of regulation make. When turning in their bunks, officers and men should place their shoes where they can be found readily in the dark. In the event of night emergencies all hands will put their shoes on before proceeding to their stations.

689. Special Winter Clothing. Special winter clothing will not be issued to officers or men unless the weather is unusually cold and the personnel drawing the clothing have stations to man or work to do on the weather decks or in the boats.

Section 6. Health and Hygiene.

690. The following regulations are listed as an aid in providing for the health and hygiene of the ship's personnel and embarked troops.

a. All medical treatment shall be dispensed from the Sick Bay, and under the cognizance of the Medical Officer.

b. All food handlers and ship's service personnel will be examined for soundness of body, cleanliness of habits, and communicable diseases prior to assuming such duties, and weekly thereafter. This included barbers, laundry and soda fountain men, messmen, ship's cooks, bakers, cooks and steward's mates.

c. All personnel, who have been exposed to possible venereal disease through sexual intercourse, shall report to the sick bay as soon as possible thereafter, take the prescribed prophylaxis treatment, and record their names on record cards provided. Any man who knows, or has reason to believe, that he has a venereal disease shall report immediately to the Medical Officer. Concealment of a venereal disease, or treatment thereof by other than the ship's medical officers is prohibited.

d. Swimming from the ship shall be permitted only with the express permission of the Executive Officer. Swimming will be permitted only in locations that have been investigated and approved by local authorities or by the Medical Officer.

e. Garbage, waste paper, and debris or trash of any nature shall not be permitted to accumulate, but shall be disposed of at frequent intervals under the direction of the First Lieutenant.

f. Discovery of rats, cock-roaches, or other vermin or insects shall be reported immediately to the First Lieutenant who shall take immediate steps to exterminate the vermin reported.

g. On arrival in a foreign port the Medical Officer shall investigate local health conditions, and shall recommend to the Commanding Officer any measures necessary for the protection of the crew.

h. Any man suspected of being under the influence of intoxicants or drugs on board ship shall immediately be placed under arrest and conducted to the Medical Officer for examination. The Medical Officer shall make a written report of the results of such examination to the Officer of the Deck and the Commanding Officer.

i. Recreation parties ashore in isolated or uninhabited areas shall carry drinking water with them. They shall not partake of water from streams or wells unless the water therefrom has been tested by the Medical Officer and found potable.

j. Naval personnel ashore on leave or liberty, who are injured or become ill shall make every effort to communicate immediately with the nearest Naval activity. Such action permits cancellation of leave and liberty, and places the man in a duty status. The Navy will then provide medical attention, thus making it unnecessary for the injured man to incur personal expense for treatment.

Section 7. Security.

690. The following security regulations are listed as a general guide to supplement local regulations and orders from higher authority:

691. Prohibited Topics in Correspondence.

Article 14, U.S. Censorship Regulations 1943 is quoted in part for compliance.

Under no circumstances shall open or hidden reference be made in any personal communications or message to any of the following:

(a) The location, identity, movement, or prospective movement of any Merchant Ship, Aircraft, Naval Vessel, or Naval or Military Force, and where necessary, by legal or notarized document, bonds, certificates, forms, money orders, checks, etc. The name of the ship or unit will be permitted to appear only where required to insure the validity of the form. No other indication of the ship or unit identity will be permitted in conversation, in texts, on envelopes, or otherwise.

Where necessary for purposes of security, any of the above may be delayed until the chance of revealing the location of the ship or unit has been passed.

(b) The defensive or offensive forces, weapons, installations or plans of the United States or her Allies. Discussion of strictly Naval information such as fire-control apparatus, turret gear, torpedoes, mines, guns, target practice, radio apparatus, aviation equipment, contents of secret or confidential publications, etc., is also prohibited.

(c) The production, movement or supply of munitions, or the location or progress of war industry in any form.

(d) The routine or employment of any Naval or Military Unit of the United States or her Allies.

(e) The effect of enemy operations, or casualties to personnel or material suffered by the United States or her Allies, previous to the official publication of such information.

(f) The criticism of equipment, appearance, physical condition, or moral of the collective or individual Armed Forces of the United States or her Allies.

(g) Matter, the dissemination of which might benefit enemy military, economic, or financial interests, or which might interfere with the national effort of, or disparage the foreign relations of, the United States or her Allies.

(h) Details of meterrological conditions shall not be disclosed; only general discussion of weather conditions will be permitted.

692. Unauthorized Conversation.

All hands shall refrain from discussing naval subjects or procedures with other naval personnel when such discussion may inadvertently be the means of causing restricted, confidential, or secret information becoming public and eventually getting into the hands of foreigners. This warning shall be published periodically by Division Officers.

693. Visitors Aboard Ship.

a. All visitors, salesmen and agents who may come on board shall be held at the gangway until ther person they desire to see arrives, or shall be escorted to the officer if the latter so requests. Under no circumstances shall anyone not belonging to the Naval Service be permitted without escort below decks.

b. Any officer, petty officer, or member of the crew seeing unescorted civilians in any part of the ship other than the general vicinity of the gangway shall take them to the Officer of the Deck for action at once. Agents may be authorized to do business with specific ship's service activities, but they must show their authorization to the Officer of the Deck and they will not be permitted to solicit or carry on any other business.

694. Interviews

No person attached to this vessel will give an interview for publication without proper authority.

695. Contraband Material.

No cameras are permitted on board except as specifically directed by the Commanding Officer for official purposes. The Officer of the Deck shall examine all packages, bundles and any other object of the like nature brought aboard in order to insure that they are not of dangerous, contraband, or suspicious nature.

696. Safes

Combinations for each safe in offices and staterooms, except the safes containing funds of the Supply Department, mail clerk's safe, will be written out and placed in sealed envelopes suitably identified on the outside and delivered to the Communication Officer for deposit in the Communication Officer's safe.

697. Anti-Sabotage Measures.

(a) At anchor in port, the following personnel shall carry pistols containing full clips of ammunition:

1. Officer of the Deck.
2. Quartermaster of the Watch.
3. Deck Sentries.

(b) At anchor in port, except when authorized ship personnel are working in such spaces, all hatches leading to ammunition spaces and clipping rooms shall be kept closed and locked.

(c) Division Officers and petty officers shall be alert to prevent possible sabotage. Any suspicious or unusual actions must be investigated and reported immediately.

698. Release of Records.

All members of the ship's company are cautioned against giving out information, files and records to individuals unless their identity and authority for requesting such information has been established satisfactorily.

CHAPTER VIII

CHARACTERISTICS AND GENERAL INFORMATION

Section 1. Characteristic Data.

699. General

Displacement, L.W.L	6510 tons.
Displacement, light	4361 tons.
Vertical center of gravity (light)	27.87 feet.
Length, overall	414'-4"
Length, waterline	405'-0"
Frame spacing	30 inches.
Beam, extreme	56'-0"
Height, keel to Upper Deck, amidships	43'-0"
Mean draft, full load	18'-6"
Mean draft, light load	13'-10"
Speed, full load, maximum	19 knots.
Speed, maximum sustained	18 knots.
Speed, economical	15½ knots.
Horsepower, normal	8000
Horsepower, maximum	8800
Cruising radius, maximum sustained speed	10,200 miles.
Cruising radius, economical speed	11,700 miles.
Compartmentation standard	2 at 18'-6" draft.
Bureau Complement, Ship	Off. 39 CPO 24 Crew 370 Total: 433
Crew Accommodations.	Off. 41 CPO 24 Crew 396 Total: 461
Troop Accommodations.	Off. 61 Troop 807 Total: 864
Fueling ships at sea, capacity	400 bbl. per hr.
Galley ranges.	Edison-Electric.
Capstans	Markey-Electric(2).
Anchor Windlass.	Lidgerwood-Electric.
Anchors, bower, port and starboard	Baldt Stockless 8225 lbs.(2).
Anchor, stream	Baldt Stockless 7000 lbs.(1).
Anchor chains	2" cast steel stud links, 9 shots, 135 fathoms.
Davit facilities	4 Welin Tripe Davits — (12 boats).
Boats, LCV(P)	14
Boats, LCP(L)	1
Boats, LCP(R)	1

Section 2. Table of Masthead Heights.

700.

1. Top of Radar Antennae above water line - - - - - 115'-0"
2. Fore Truck light above water line - - - - - - - - 112'-3"
3. Fore Truck light above Upper Deck - - - - - - - - 87'-9"
4. Mast Head light above Upper Deck - - - - - - - - 60'-0"
5. Top of Main Truck above water line - - - - - - - - 111'-9"
6. Upper Towing light above Upper Deck - - - - - - - 54'-3"
7. Lower Towing light above Upper Deck - - - - - - - 48'-6"
8. Main Truck light above water line - - - - - - - - 105'-3"
9. Main Truck light above Upper Deck - - - - - - - - 80'-9"
10. Range light above Upper Deck - - - - - - - - - - - 73'-9"
11. Screened speed light above Upper Deck - - - - - - 39'-0"
12. Forward anchor light above water line - - - - - - 69'-6"
13. After anchor light above water line - - - - - - - 19'-0"
14. Running lights above water line - - - - - - - - - 39'-6"

Note: The water line referred to is the 18'-6" mean draft water line obtained by scaling from Consolidated Steel Corp., print 512-6-1

701. Tactical Data.

(a) Bridge above water line - - - - - - - - - - - 44'-0"
(b) Distance from Bridge to Bow - - - - - - - - - - - 145'-0"
(c) Distance from Bridge to Stern - - - - - - - - - - 269'-0"
(d) Main Deck (1) above water line - - - - - - - - - 15'-6"
(e) Upper Deck (01) above water line - - - - - - - - 24'-6"
(f) Superstructure Deck (02) above water line - - - 33'-0"
(g) Navigating Deck (03) above water line - - - - - 41'-0"
(h) Top of House (04) above water line - - - - - - 48'-6"

702. Builders' Data.

(a) Ship Yard - Consolidated Steel Corp., Wilmington, Calif.
(b) Fitting Out Yard - U.S. Naval Drydocks, Roosevelt Base, N.O.B., San Pedro, Calif.
(c) Launched -10 November 1942, at San Pedro, Calif.
(d) Commissioned - 21 June 1943, at San Pedro, Calif.
(e) Reported for Duty - 12 August 1943, at San Diego, Calif.

Section 3. Armament

703. The battery of the FELAND consists of the following:

GUN #	CAL.	MARK-GUN	MARK-MOUNT	LOCATION
41	40 MM Twin	MK1-Mod 1 MK1-Mod 2	MK1-Mod 1	Deck 01 - Fr. 14
42	"	"	"	Deck 1 - Fr. 168
31	3"/50	MK22-Mod 0	MK22-Mod 0	Deck 03 - Fr. 56-1
32	"	MK21-Mod 0	"	" Fr. 56-2
33	"	MK22-Mod 0	"	Deck 02 - Fr.106-1
34	"	"	"	" Fr.106-2
21	20 MM	MK4-Mod 1	MK4-Mod 1	Deck 01 - Fr. 22-1
22	"	"	"	" Fr. 22-2
23 *	"	"	"	Deck 04 - Fr. 62-1
24 *	"	"	"	" Fr. 62-2
25 *	"	"	"	Deck 03 - Fr.102-1
26	"	"	"	" Fr.102-2
27 *	"	"	"	Deck 01 - Fr.123-1
28 *	"	"	"	" Fr.123-2
29	"	"	MK6-Mod 0	Deck 1 - Fr.159-1
20-10	"	"	"	" Fr.159-2

* Equipped with MK 14 sights.

704. The Ship's fire control installation are as follows:

(a) Four Mark 51 directors, all located on the centerline as follows:

#1 at frame 20 controls the forward 40 MM (gun #41)
#2 " " 59 " " forward 3"/50's (guns #31 & #32)
#3 " " 104 " " after 3"/50's (guns #33 & #34)
#4 " " 163 " " after 40 MM (gun #42)

(b) Nine Mark 14 sights as follows: Two are Mod 3 and are installed on the Mark 51 directors controlling the 40 MM guns; two are Mod 4, and are installed on the 3"/50 gun directors; five are Mod 2 and are installed on 20 MM guns #23, 24, 25, 27 & 28.

Section 4. Fresh Water Tanks, Voids & Cofferdams.

705. FRESH WATER TANKS

NUMBER	LOCATION	CAPACITY			REMARKS
		GALS.	TONS	BBLS.	
B-7-W	Fr. 84 - 92	11,970	44.29	284.9	Boiler Feed
B-8-W	"	11,970	44.29	284.9	"
B-11-W	"	32,540	120.4	774.7	Potable Water
B-12-W	"	32,540	120.4	774.7	"
TOTAL:		89,020	329.38	2119.2	
VOIDS					
A-1-W	Fr. 0 - 12	17,450	66.31	415.3	Fwd. Peak
C-923-V	Fr.143-159	41,520	157.78	988.2	After Peak
C-924-V	Fr.159-167	2,257	8.6	53.7	
C-925-V	"	2,257	8.6	53.7	
C-926-V	"	4,200	15.96	100.0	
C-927-V	Fr.169-Aft	20,655	78.9	491.6	

COFFERDAMS

NUMBER	LOCATION
B-5-V	Fr. 83-84 Fwd. Engine Room
B-6-V	" "
B-9-V	Fr. 84-92 Evaporator Space
B-10-V	" "
B-13-V	Fr. 92-93 After Engine Room
B-14-V	" "
	DRAIN WELLS
#1	Fr. 32-33 #1 Hold
#2	Fr. 52-53 #2 Hold
#3	Fr. 68-69 #3 Hold
#4	Fr. 83-84 Fwd. Engine Room
#5	Fr. 91-92 Evaporator Space
#6	Fr.108-109 After Engine Room
#7	Fr.142-143 #5 Hold

Section 5. Anchor Gear.

706. **Windlass**

A Lidgerwood anchor windlass, fitted with two chain wildcats and two drums, is installed on the Upper Deck between Frames #10 and #14. The windlass is driven by a 50 HP, 230 Volt, DC. Westinghouse electric motor.
The windlass is designed to hoist both anchors and chain simultaneously from a depth of 30 fathoms of water at a speed of 30 feet per minute without exceeding 25% overload on the motor.

707. Anchors

The port and starboard ship's anchors are BALDT Stockless Anchors of 8,225 lbs. each, housed in the hawse pipes.
A BALDT Stockless Stream Anchor, weighing 7000 lbs, is stowed on the Main Deck, Frame #123, starboard side.

708. Chains

The Anchor Chains consists of nine 15 fathom shots (135 fathoms) both port and starboard, of stud link, die-lock 2" steel chain.

709. Deck Stoppers

Stoppers are standard Navy Pelican Hook Stoppers secured to the deck outboard of the windlass.

Section 6. Communication Installations

710. Radio Room. The Radio Room, located on Navigating Deck between Framed #78 and #82 contains the main radio transmitting and receiving equipment.

711. Radio Equipment. The following radio equipment is installed aboard the ship in the Radio Room unless otherwise noted:

(a) Transmitters:
1 - TBK-12, 230 V. D.C., 2000 to 18,100 KCS.
1 - TAJ-11, 230 V. C.C., 175 to 600 KCS.
1 - TCE-2, 120 V. D.C., 350 to 9050 KCS (A1 & A3)
2 - TCY, (Portable Units).

(b) Receivers
2 - RAK-6, 15 to 600 KCS.
2 - RAL-6, 300 to 23,000 KCS.
1 - RAO, 0.54 to 30 MCS
1 - RBL, 15 to 600 KCS.
1 - RBH, 300 to 1200 KCS & 1700 to 16,000 KCS (located in Chart Room).
2 - RBO, 0.53 to 1.6 MCS & 5.55 to 15.6 MCS

(c) Transceivers (Permanently Installed)
1 - SCR 608 (Operational High Frequency Voice Circuits) located in shack on Forward 3" gun platform.
1 - SCR 508 Located on Navigation Deck, port side, Frame #83.
1 - TBS (Emergency and Tactical Maneuvering Circuit) located in compartment off portside passage abaft Pilot House. Remote Control to Pilot House and Chart Room.
1 - TCO-1 Located in Radio Room. Remote Control to Pilot House.
1 - TCS Located in Radio Room.

(d) Transceivers (Portable)
9 - SCR 610 (Boat Control) Distributed under operational conditions as follows: (1) Shack on forward gun platform; (1) Radar Room; (1) Radio Room; (2) Smoke Boats; (1) Beach Party; (1) Boat Group Commander; (1) Salvage Boat; (1) Replacement.
2 - TBX (Ship to Shore Administrative Traffic - Beachmaster),
2 - TBY " " " " " "
4 - SCR-536 (Beach Party short range equipment)

712. Bullhorns. Two "Stromberg-Carlson" Bullhorns are installed, port and starboard, on Deck 02, Frame #58. Microphones are located on each wing of the Bridge with an amplifier on the after bulkhead of the Pilot House.

713. Portable Sound Systems. Two self-contained "Newcomb" sound systems are available. They consist of battery powered amplifying unit, horn and microphone.

714. Electric Megaphones. The ship is supplied with 3 "Powers" Electric Megaphones, type MX-100. The megaphones may be used in boats through portable amplifiers, or through fixed amplifiers aboard ship. Permanently installed amplifiers are located at the forward edge of the starboard bridge wing, and on the Quarterdeck at Frame #110, amidships.

715. Public Address System. A "Remler" announcing system Model N-289-3 is installed with main control stations at the starboard side of the Pilot House and in the portside passage on Deck 01 just forward of the Quarterdeck. Control Stations contain selector switches for the following circuits: (a) Ship's Officers, (b) Troop Officers, (c) Crew's Berthing, (d) Troop Berthing, (e) Engine Rooms, (f) Weather Decks.
The various circuits feed 38 speakers located throughout the ship. The General Alarm and Gas Alarm are automatically sounded over this system.

716. Battle Announcing System. For gunnery purposes, an "R.C.A." announcing system is installed, consisting of microphones at the Forward and After Fire Control Stations with speakers located at each of the four 3"/50 gun platforms.

717. Ship's Service Telephones. This is an Automatic Telephone Co. System with 100 circuits connected to outlets throughout the ship. The main switchboard is located in the Telephone Room on the second deck, port side at Frame #87 to #92.

718. Sound-powered Telephones. There are six circuits throughout the ship with jack-box connections for head-sets as follows:
(a) 1-JV Maneuvering Circuit, (Bridge, Fantail, Forecastle, Engine Room, Fire Control, Steering Engine Room, etc).
(b) 2-JV Engine Room Circuit (Forward & After Engine Rooms, Fueling Stations, etc).
(c) JA-Captain's Battle Circuit (Bridge, Fire Control, Quarterdeck, etc).
(d) JZ-Damage Control Circuit (Repair Stations, Sick Bay, etc).
(e) JQ-Fire Control (3"/50 gun stations).
(f) JY-Fire Control (20 MM and 40 MM gun stations).
Note: JQ and JY circuits may be paralleled to put all gun station phones on a single circuit.

719. Intercommunication System. For operational use, an "Amplicall" commercial type inter-communication system is installed with the central station in the Combat Information Center in the Chart Room. Stations are located as follows:

(a) Forward Fire Control.
(b) 608 Radio Shack.
(c) Quarterdeck.
(d) Communication Office.

720. Signal Searchlights. The size, type and location of searchlights is as follows:

(a) 24 inch - (2) "General Electric", located on platforms port and starboard of forward stack.
(b) 12 inch - (2) "Crouse-Hinds", on port and starboard sides of Signal Bridge.
(1) "General Electric", on forward rail of Signal Bridge.
(c) 8 inch - (1) "U.S. Metal Products Co.", on forward rail of Signal Bridge.

Section 7. Radar Installations.

721. Location of Equipment.
The Radar Room is located on Deck 03, starboard side, just aft of the Pilot House. It contains the SGa and SA models complete with the exception of the SGa's amplidyne which is mounted on the forward bulkhead of the Aerographer's Room. The SA Dehydrator and two (2) Nitrogen bottles, the Remote PPI Adapter, A BL and two (2) ABK Radio Transmitting Units are also installed in this space. The Remote PPI, connected to the SGa radar, is located in the Pilot House against the forward bulkhead on the starboard side.

722. Radar Plot
Radar Plot is located in the Chart Room and a combined air and surface plotting table is installed. Voice tubes join the Bridge Wings, Pilot House and Signal Bridge. A JV sound powered phone outlet is installed, and an inter-communication system connects the Communication Office, Fire Control and the 610 Radio Shack.

723. Power Supply
The radar power supply is located in the IC Room and consists of two (2) 4KVA motor-alternator sets. The step-by-step Selsyn Convertor is located in the Gyro Room. Batteries for the ABK are located in the Fan Foom aft of the Aerographer's Room.

724. Radar Antennas
The Radar Antennas are on the foremast directly above the Radar Room, permitting short transmission lines with few bends. The SGa antenna is located on a platform forward of the mast 102 feet above the waterline. The SA antenna is directly on top of the foremast 112 feet above the waterline at its center point. The BL antenna is incorporated in the SA antenna, while the ABK antenna is mounted on the starboard end of the foremast yardarm.

725. Spare Parts
Radar spare parts and tubes are stowed in metal boxes and in a locker located in the void under the starboard wing of the Bridge. Tubes are also kept in the Radar Room for immediate access.

Section 8. Navigational Installations.

726. Magnetic Compasses.

1 $7\frac{1}{2}$" Navy Standard (Lionel) Mark 1, #2464 located in Pilot House.
1 $7\frac{1}{2}$" Navy Standard (Lionel) Mark 1, #2372 located on Quarterdeck, Frame #121.

727. Gyro Compass.

1 Master Gyro (Sperry) Mark XIV Mod 1, Serial #141166 located on Second Deck, Frame #91, port side.

728. Gyro Repeater (Sperry)

(a) 1 Mark XV Mod 0 located on Signal Bridge.
(b) 1 Mark XV Mod 0 located on Bridge, Port wing.
(c) 1 Mark XV Mod 0 located on Bridge, Starboard wing.
(d) 1 Mark XV Mod 0 located in Pilot House.
(e) 1 Mark XV Mod 0 located in Steering Engine Room.
(f) 1 Mark XV Mod 0 located in Chart Room.

729. Steering Gear

Lidgerwood Electro-Hydraulic Steering Gear, consisting of two steel rams, operating in cylinders, and connected to the rudder cross-head.
Cylinder connected by piping to two variable Stroke Northern Pump Co. 85 GPM pumps driven by Westinghouse 50 HP, 230 Volt, D.C. motors.
Controlled by Lidgerwood Telemotor System.

730. Engine Order Telegraph (Henschel Corp., Type 2).

(a) 1 on Quarterdeck.
(b) 1 in Pilot House.

(Repeaters in Forward and After Engine Rooms)

731. Rudder Angle Telegraph (Henschel Corp., Type 6)

1 in Pilot House.

(Repeater in Steering Engine Room).

732. Electric Rudder Angle Indicator (Henschel Corp.)

1 in Pilot House.

733. Fathometer (R.C.A. Mfg Co., Type CRV-55063, Serial #209) located on starboard side of Pilot House.

734. Sounding Machine (Louis Weule Co. Type SK) located on Deck 02, Frame #57, port side.

Section 9. Ship's Berthing & Loading Characteristics.

735. Ship's Facilities.

	Troops	Crew	Officers
Heads	3	4	5
(a) Seats	29	19	12
(b) Basins	17	19	38
(c) Showers (salt)	9		
(d) Showers (fresh)		9	11
(e) Urinals	8	9	3

Sick Bay Capacity	25 beds.
Potable Water Capacity	64,000 gals.
Fresh water, daily	18,000 gals.
Life rafts (25 man)	32
" (40 man)	6

736. Cargo Handling Gear Allowance

(a) NETS, cargo 125
(b) SLINGS, Chime hook, 4 bbl. cap. 4
(c) SLINGS, Pallet bridle 4'x6' Pallets 5
(d) SLINGS, Universal . . 6
(e) SLINGS (3½" manila) per gear 10
(f) SLINGS, (5/8" wire) 20' long, per gear. . 10
(g) SLINGS, 2" wire, 50' long. 2
(h) SLINGS, 1-1/8" wire, 50' long. 2
(i) SLINGS, 1" wire, 50' long. 4
(j) SLINGS, 7/8" wire, 30' long 4
(k) SLINGS, 3/4" wire, 40' long 4
(l) SLINGS, 3/4" wire, 7' long 20
(m) SLINGS, 5/8" wire, 7' long 20
(n) SLINGS, ½" wire, 7' long . 20
(o) PINCH BARS, ... 6
(p) ROLLERS (3" pipe) 5' long, 18
(q) ROLLERS, Fancy 6
(r) ROLLER, Convey or, Sections 30
(s) NETS, Debarkation. 10

737. Troop Berthing

Officers		Enlisted Men	
Stateroom	Capacity	Compartment	Capacity
0101	1	B-201	50
0107	4	B-207	176
0109	4	C-101	218
0111	4	C-201	159
0117	16	C-202	204
0118	16		807
0120	16		
	61		

Note: 112 additional enlisted men can be accommodated, if necessary, on cots set on hatch squares.

738. Troop Cargo Space.

HATCH	DECK	TYPE CARGO	SQ.FT.	CU.FT.	MIN.H'T	HATCH SIZE	BOOM CAP.
1	1	General	158	1764	11'-2"	15'-9"x10'-0"	2-10 Tons
	2	"	158	1216	7'9"	"	"
	3	"	590	6105	11'-10"	"	"
	Hold	Gasoline	446	3800	6'-0"	11'-3"x6'-0"	"
2	1	General	650	6825	10'-6"	32'-6"x20'-0"	1-10 Ton 1-15 Ton
	2	"	650	4550	7'-0"	"	"
	3	"	650	4550	7'-0"	"	"
	Hold	"	1121	12144	10'-7"	"	"
5	2	General	650	6825	10'-6"	32'-6"x20'-0"	2-10 Ton
	3	"	1520	15707	10'-1"	"	"
	Hold	"	734	3190	5'-0"	15'-0"x10'-0"	"

Total Troop Cargo Capacity, 7,327 Sq. ft. 76,676 cu. ft.